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1988 BUDGET EXPLANATORY NOTES FOR COMMITTEE ON APPROPRIATIONS

FOREST SERVICE

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Mission and Organization

The Forest Service has the Federal responsibility for national leadership in forestry. This role includes participating at the national level in setting priorities, establishing policies, and formulating and implementing programs.

The primary purpose of Forest Service programs is to provide maximum benefits to the public through proper management and use of renewable natural resources in the Nation's forests and rangelands. These benefits take the form of wood and paper products, energy and minerals, wilderness, red meat, fish, wildlife, water, and a high quality environment for outdoor recreation. All are essential and contribute to the economic and social well-being of Americans.

The development of human resources is an added and valuable part of the Forest Service mission. The Forest Service administers and hosts programs that provide work, training, and education to the unemployed, underemployed, elderly, young, and others with a productive potential.

The Forest Service carries out its mission through programs in three major areas:

Forest Research

Forest Service research develops knowledge and technology to enhance the economic and environmental values of the Nation's 1.6 billion acres of forest and related rangeland. This program seeks better ways to use forest and rangeland resources by developing technology to reduce costs, increase productivity, and protect environmental quality.

Forest Service research involves an extensive array of biologic, economic, engineering, and social disciplines. The program is coordinated with research at 61 forestry schools and State agricultural experiment stations at land grant institutions. This research also supports international forestry through cooperation with other U.S. agencies, the United Nations, and foreign countries.

State and Private Forestry

Forest Service cooperative State and private forestry programs protect natural resources and improve management and production on nonindustrial private forest lands. These programs are delivered through State Foresters or equivalent State officials providing assistance and coordination to landowners, operators, wood processors, and State and local agencies.

Fifty-eight percent of the Nation's commercial forest land is in non-industrial private ownership. Such lands total more than 278 million acres and are important in meeting national needs for natural resources. Federal assistance is provided for specific activities and projects of national benefit to improve the productive potential and efficient use of these lands.

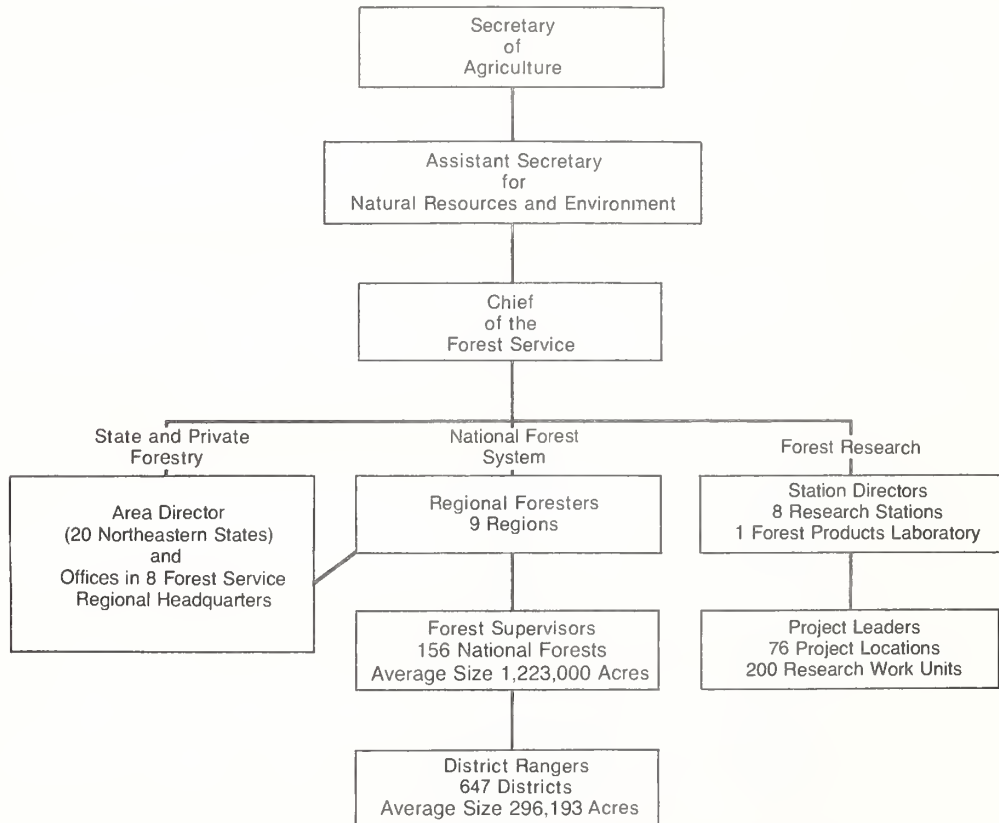
Federal assistance is targeted to fulfill Federal roles and meet national interest objectives which protect non-Federal wildlands from fire; reduce losses of timber and wood products from damaging insects and diseases; increase timber growth and harvests; protect soil and water resources; manage forest resources in rural and urban areas for multiple uses; and improve efficiency and reduce waste in wood product harvesting, processing, and marketing.

Management of National Forests and Grasslands

The Forest Service manages about 191 million acres of public land in 44 States, Puerto Rico, and the Virgin Islands. These public lands, known collectively as the National Forest System, encompass 156 National Forests, 19 National Grasslands, and 16 Land Utilization Projects. The natural resources on these lands are some of the Nation's greatest assets and have major economic, environmental, and social significance for all Americans.

The Forest Service manages the National Forest System under the multiple use concept for forage, fish and wildlife, water, wilderness, outdoor recreation, and sustained production of timber. The energy and mineral resources on these lands also contribute significantly toward meeting the Nation's needs for hard rock minerals, coal, oil, gas, and geothermal resources.

United States Department of Agriculture Forest Service Organizational Chart



State and Private Forestry cooperative assistance is provided through the 50 State Foresters on management, use, and protection of non-Federal forest land.

National Forest System administration directs and carries out the multiple use management of the 191 million acres of the National Forest System for wood, water, wildlife, range, forage, and recreation purposes.

Research is conducted on:

- Fire and atmospheric science
- Forest insects and diseases
- Renewable resources economics
- Timber management
- Watershed management
- Wildlife, range, fish habitat
- Forest recreation
- Forest inventory
- Forest products

The Forest Service



Field Offices of the Forest Service

United States Department of Agriculture



REGIONAL HEADQUARTERS AND NATIONAL FORESTS

Northern Region
Federal Bldg.
P.O. Box 7669
Missoula, MT 59807

Idaho

Clearwater	Orofino	83544
<i>Idaho Panhandle National Forests</i> ¹		
Coeur d'Alene	Coeur d'Alene	83814
Kaniksu		
St. Joe		
Nezperce	Grangeville	83530

Montana

Beaverhead	Dillon	59725
Bitterroot	Hamilton	59840
Custer	Billings	59103
Deerlodge	Butte	59703
Flathead	Kalispell	59901
Gallatin	Bozeman	59715
Helena	Helena	59626
Kootenai	Libby	59923
Lewis and Clark	Great Falls	59403
Lolo	Missoula	59801

Southwestern Region
Federal Bldg.
517 Gold Ave. SW.
Albuquerque, NM 87102

Arizona

Apache-Sitgreaves	Springerville	85938
Coconino	Flagstaff	86001
Coronado	Tucson	85701
Kaibab	Williams	86046
Prescott	Prescott	86301
Tonto	Phoenix	85038

New Mexico

Carson	Taos	87571
Cibola	Albuquerque	87112
Gila	Silver City	88061
Lincoln	Alamogordo	88310
Santa Fe	Santa Fe	87501

Pacific Southwest Region
630 Sansome St.
San Francisco, CA 94111

California

Angeles	Pasadena	91101
Cleveland	San Diego	92188
Eldorado	Placerville	95667
Inyo	Bishop	93514
Klamath	Yreka	96097
Lassen	Susanville	96130
Los Padres	Goleta	93117
Mendocino	Willows	95988
Modoc	Alturas	96101
Plumas	Quincy	95971
San Bernardino	San Bernardino	92408
Sequoia	Porterville	93257
Shasta-Trinity ¹	Redding	96001
Sierra	Fresno	93721
Six Rivers	Eureka	95501
Stanislaus-Calaveras		
Big Tree ¹	Sonora	95370
Tahoe	Nevada City	95959

Rocky Mountain Region
11177 West 8th Ave.
P.O. Box 25127
Lakewood, CO 80225

Colorado

Arapaho-Roosevelt ¹	Ft. Collins	80526
Grand Mesa, Uncompahgre, and Gunnison ¹	Delta	81416
Pike-San Isabel ¹	Pueblo	81008
Rio Grande	Monte Vista	81144
Routt	Steamboat Springs	80477
San Juan	Durango	81301
White River	Glenwood Springs	81602

Nebraska

Nebraska-Samuel R. McKelvie ¹	Chadron	69337
--	---------	-------

South Dakota

Black Hills	Custer	57730
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Wyoming

Bighorn	Sheridan	82801
Medicine Bow	Laramie	82070
Shoshone	Cody	82414

Intermountain Region
Federal Bldg.
324 25th St.
Ogden, UT 84401

Idaho

Boise	Boise	83702
Caribou	Pocatello	83201
Challis	Challis	83226
Payette	McCall	83638
Salmon	Salmon	83467
Sawtooth	Twin Falls	83301
Targhee	St. Anthony	83445

Nevada

Humboldt	Elko	89801
Toiyabe	Reno	89501

Utah

Ashley	Vernal	84078
Dixie	Cedar City	84720
Fishlake	Richfield	84701
Manti-LaSal	Price	84501
Uinta	Provo	84603
Wasatch-Cache ¹	Salt Lake City	84138

Wyoming

Bridger-Teton ¹	Jackson	83001
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Pacific Northwest Region
319 SW Pine St.
P.O. Box 3623
Portland, OR 97208

Oregon

Deschutes	Bend	97701
Fremont	Lakeview	97630
Malheur	John Day	97845
Mt. Hood	Gresham	97030
Ochoco	Prineville	97754
Rogue River	Medford	97501
Siskiyou	Grants Pass	97526
Siuslaw	Corvallis	97339
Umatilla	Pendleton	97801
Umpqua	Roseburg	97470
Wallowa-Whitman ¹	Baker	97814
Willamette	Eugene	97440
Winema	Klamath Falls	97601

Washington

Colville	Colville	99114
Gifford Pinchot	Vancouver	98660
Mt. Baker-Snoqualmie ¹	Seattle	98104
Okanogan	Okanogan	98840
Olympic	Olympia	98507
Wenatchee	Wenatchee	98801

¹Two or more separately proclaimed National Forests under one supervisor.

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Eastern Region
310 West Wisconsin Ave.
Milwaukee, WI 53203

Illinois

Shawnee Harrisburg 62946

Indiana and Ohio

Wayne-Hoosier¹ Bedford 47421

Michigan

Hiawatha Escanaba 49829

Huron-Manistee¹ Cadillac 49601

Ottawa Ironwood 49938

Minnesota

Chippewa Cass Lake 56633

Superior Duluth 55801

Missouri

Mark Twain Rolla 65401

New Hampshire and Maine

White Mountain Laconia 03246

Pennsylvania

Allegheny Warren 16365

Vermont

Green Mountain Rutland 05701

West Virginia

Monongahela Elkins 26241

Wisconsin

Chequamegon Park Falls 54552

Nicolet Rhinelander 54501

Southern Region
1720 Peachtree Rd., NW.
Atlanta, GA 30367

Alabama

National Forests in

*Alabama*¹ Montgomery 36107

William B. Bankhead

Conecuh

Talladega

Tuskegee

Arkansas

Otuchita Hot Springs 71901

Ozark-St. Francis¹ Russellville 72801

Florida

National Forests in

*Florida*¹ Tallahassee 32308

Apalachicola

Choctawhatchee

Ocala Osceola

Georgia

Chattahoochee and Gainesville 30501

Oconee¹

Kentucky

Daniel Boone Winchester 40391

Louisiana

Kisatchie Pineville 71360

Mississippi

National Forests in

*Mississippi*¹ Jackson 39269

Bienville

Delta

De Soto

Holly Springs

Homochitto

Tombigbee

Southern Region (continued)

North Carolina

National Forests in North

*Carolina*¹ Asheville 28802

Croatan

Nantahala

Pisgah

Uwharrie

Puerto Rico

Caribbean Rio Piedras 00928

South Carolina

Francis Marion and Sumter¹ Columbia 29202

Tennessee

Cherokee Cleveland 37311

Texas

National Forests

*in Texas*¹ Lufkin 75901

Angelina

Davy Crockett

Sabine

Sam Houston

Virginia

George Washington Harrisonburg 22801

Jefferson Roanoke 24001

Alaska Region
Federal Office Bldg.
P.O. Box 1628
Juneau, AK 99802

Alaska

Chugach Anchorage 99504

Tongass-Chatham Sitka 99835

Tongass-Ketchikan Ketchikan 99901

Tongass-Stikine Petersburg 99833

**RESEARCH HEADQUARTERS AND
STATE AND PRIVATE FORESTRY**

Intermountain Forest and Range Experiment Station
507 25th St., Ogden, UT 84401

North Central Forest Experiment Station
1992 Folwell Ave., St. Paul, MN 55108

Northeastern Forest Experiment Station
370 Reed Rd., Broomall, PA 19008

Pacific Northwest Forest and Range Experiment Station
P.O. Box 3890, Portland, OR 97208

Pacific Southwest Forest and Range Experiment Station
1960 Addison St., P.O. Box 245, Berkeley, CA 94701

Rocky Mountain Forest and Range Experiment Station
240 West Prospect Ave., Fort Collins, CO 80526

Southeastern Forest Experiment Station
200 Weaver Blvd., Asheville, NC 28804

Southern Forest Experiment Station
T-10210 U.S. Postal Service Bldg., 701 Loyola Ave.,
New Orleans, LA 70113

Forest Products Laboratory
Gifford Pinchot Dr.
P.O. Box 5130
Madison, WI 53705

State and Private Forestry

State and Private Forestry offices are located in
the Regional Headquarters, except for the Eastern
Region. This S&PF office is at:

Northeastern Area—S&PF
370 Reed Rd.
Broomall, PA 19008

Highlights of the 1988 Request

Appropriation	FY 1987 Appropriation (Dollars in thousands)	FY 1988 Estimate	Inc.(+) or Dec.(-)
Forest Research:			
Regular research appropriation	\$ 122,882	122,212	-670
Special projects, competitive grants. \$	6,000 ^{1/}	--	-6,000
Subtotal, Forest Research	\$ 128,882	122,212	-6,670
FTE	2,445	2,367	-78
State and Private Forestry	\$ 58,946	35,434	-23,512
FTE	546	450	-96
National Forest System	\$ 1,158,294	1,016,417	-141,877
FTE	23,506	21,212	-2,294
Construction	\$ 261,736	221,543	-40,193
FTE	3,835	3,558	-277
Mount St. Helens National Monument ... \$	(9,915) ^{2/}	--	(-9,915)
FTE	--	--	--
Land Acquisition	\$ 52,236	3,907	-48,329
FTE	81	80	-1
Acquisition of Lands for National Forests, Special Acts	\$ 966	966	--
FTE	3	3	--
Acquisition of Lands to Complete Land Exchanges	\$ 895	990	+95
FTE	1	1	--
Miscellaneous Trust Funds	\$ 90	90	--
FTE	--	--	--
Range Betterment Fund	\$ 3,644	3,750	+106
FTE	74	74	--
Operation and Mtce. of Recreation Fac. \$	--	52,000	+52,000
FTE	--	1,235	+1,235
Youth Conservation Corps	\$ (1,000) ^{3/}	--	(-1,000)
FTE	--	--	--
Permanent Appropriations	\$ 414,563	171,245	-243,318
FTE	2,143	2,042	-101
Trust Funds	\$ 197,616	250,369	+52,753
FTE	3,141	3,744	+603
Reforestation Trust Fund	\$ 30,000	30,000	--
FTE	725	725	--
Total, Regular Forest Service	\$ 2,307,868	1,908,923	-398,945
FTE	36,500	35,491	-1,009
Transfer Accounts	FTE 1,235	739	-496
TOTAL	\$ 2,307,868	1,908,923	-398,945
FTE	37,735	36,230	-1,505

^{1/} \$4,500,000 has been transferred to the account of the Competitive Research Grants Office in the Cooperative State Research Service. The remaining \$1,500,000 will be used to cover pay and FERS costs within the Research budget line items.

^{2/} Contract authority was made available in the 1987 Appropriations Act for road construction. A 1987 supplemental has been submitted with the FY 1988 budget request to liquidate obligations incurred by the Forest Service.

^{3/} The YCC program is financed with funds available to the Forest Service.

The changes between the FY 1987 appropriation and the FY 1988 request are highlighted below.

Forest research

The FY 1988 Forest Service Research request is about 5 percent less than the FY 1987 appropriation. The majority of this 5 percent reduction is due to the proposed termination of the competitive grants program. The FY 1988 request continues to reflect the President's overall objectives to improve efficiency and reduce costs by further streamlining the Forest Service research organization.

Significant actions planned in FY 1988 to help achieve these objectives include:

- terminating the lowest priority research in all program areas.
- delaying initiation of new research not related to critical problems.
- stretching out or delaying several research efforts.
- improving the efficiency of research management and support.
- terminating the competitive forestry research grants program.
- terminating one research work unit which closes the research location.

The FY 1988 program concentrates on research that will help improve the Nation's economic condition while maintaining an adequate level of protection for forest and rangeland resources. The highest priority ongoing research will be maintained in all programs.

State and private forestry

The FY 1988 State and Private Forestry request is about 40 percent less than the FY 1987 appropriation. Federal personnel will be reduced 18 percent.

This reduction in funding limits the Federal role in promoting management of forested lands in State and nonindustrial private ownership to providing assistance for specific activities and projects of national benefit. For cooperative fire protection and insect and disease suppression, the Federal role will provide limited specialized technical assistance, collect and analyze data nationwide, provide coordination, and serve as an information clearinghouse.

The primary emphasis of the proposed budget will be forest pest management on Federal lands, including a base level of surveillance, evaluation, and suppression.

Cooperative insect and disease suppression projects will be eliminated. All assistance in forest resource management, wood utilization, seedling production, nursery and tree improvement, urban forestry, and State forest resource planning will be eliminated.

All financial assistance to States will be discontinued, except the Cooperative Pest Action Program and funding to Minnesota for intensive forest management associated with the Boundary Waters Canoe Area Wilderness legislation. The Cooperative Pest Action Program will be maintained for cooperative lands to maximize efficiency by providing for a coordinated preventive pest management program. High-priority special projects, such as the National Agricultural Pesticide Impact Assessment Program, will be carried out.

National Forest System

The FY 1988 National Forest System (NFS) request is about 12 percent less than the FY 1987 appropriation. This decrease is due in part to \$1,000,000 requested for fighting forest fires in FY 1988 compared to \$125,000,000 included in the FY 1987 appropriation and the transfer of \$52,000,000 from recreation management to Operation and Maintenance of Recreation Facilities to be paid for by increased receipts. Without these two changes, the FY 1988 proposal is about 3 percent higher than FY 1987.

This proposal includes a slight decrease in the timber sales program level--from 11.2 billion board feet to 11.1 billion board feet in FY 1988.

The FY 1988 program provides for preparing and offering 7.6 billion board feet of new timber sales, 0.8 billion board feet of timber salvage sales, and the reoffer of 2.7 billion board feet of timber sales turned back as a result of the Federal Timber Contract Payment Modification Act of 1984.

Administration of special uses will focus on the most critical needs. New applications will be processed in a timely manner in connection with projects that can produce increased revenues or which are essential for public health and safety.

The FY 1988 reforestation and timber stand improvement request has been decreased by \$19,254,000 from the FY 1987 appropriation.

A total of \$5,696,000 is requested for the cooperative law enforcement program. This level includes \$2,489,000 for the cooperative program of which \$2,000,000 is for cannabis eradication. In addition, \$3,207,000 is provided for the Forest Service to implement a program to fulfill the agency's role in complying with the National Forest System Drug Control Act of 1986.

Construction

The proposed FY 1988 construction request is about 15 percent less than the FY 1987 appropriation (excluding the use of timber purchaser road credits).

The road construction and reconstruction program will emphasize access for timber sales. Increased costs for roads will be incurred only when such action clearly shows a cost effective advantage or when necessary to protect resource values or public safety. In keeping with the need to constrain Federal expenditures, only the highest priority projects for road construction and reconstruction are being proposed.

Facilities construction will continue to focus on abating high hazard health and safety deficiencies in research, recreation, fire, administrative, and other facilities. Priority will also be given to facilities that support resource output, protection goals, and increase fee receipts.

Forest Road Program (FRP) funds are used for work associated with planning, designing, constructing or reconstructing roads, including rights-of-way acquisition, regardless of the source of funds used for the actual construction or reconstruction of the project. In FY 1988, 18.6 percent of all road miles will be constructed from FRP funds and 81.4 percent will be constructed from Purchaser Credit Program and Purchaser Election Program funds. Forest Road Program funds will also be used to augment purchaser construction where analyses have shown that it is more cost effective to construct a road to a higher standard than that required for the immediate timber sale.

Land acquisition The appropriation was established by Congress in FY 1982 and includes land acquisition under the Land and Water Conservation Fund (L&WCF).

The FY 1988 request for the Forest Service will cover the cost of closing existing cases, payment of deficiency awards, and land exchange costs to acquire land that would qualify for purchase with L&WCF funds. No funding for new land purchases is requested. In keeping with this policy, the Administration is also proposing to rescind \$49 million for land purchases from FY 1987 appropriations and prior year unobligated balances.

Productivity and efficiency The Forest Service is continuing its emphasis on increasing productivity and efficiency at all levels through ongoing and new management initiatives. Significant accomplishments and savings are reflected in the FY 1988 budget request. Cost reductions have taken place as a result of unit colocation, shared services, and reorganizations. Increased use of automated systems in contracting, procurement, and personnel management will yield additional future savings and increases in productivity.

Three Productivity Improvement Teams (PIT) completed studies in road construction and maintenance, land acquisition and appraisals, and timber sale appraisals. When action plans from these studies are implemented along with earlier PIT studies, additional cost efficiencies should take place. Pilot studies initiated in 1986 on three national forests and one research station are yielding positive results and are being extended to other units for test purposes. Oversight of these actions is continuing, and considerable interest is being expressed outside of the Agency.

Payments to States The FY 1988 budget includes a legislative proposal to change payments to States and counties from a gross receipts sharing to a net receipts sharing basis.

1987 APPROPRIATION CROSSWALK TO 1987 CURRENT ESTIMATE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1+4+7) (8)
	1987 APPRN	TOTAL PAY & FERS NEEDS	TRANSFER OF UNOBLIGATED BALANCE	TRANSFER OF BUDGET AUTHORITY	REPROGRAM TO COVER PAY & FERS NEEDS	COSTS ABSORBED WITHIN ACTIVITIES	SUPPLEMENTAL(+) OR RESCISSION(-)	1987 CURRENT ESTIMATE
Forest Research:								
Regular appropriation	122,882	2,957	1,381	---	---	76	---	122,882
Competitive Grants	6,000	---	---	-4,500 1/	1,500	---	---	1,500
Total, Forest Research	128,882	2,957	1,381	-4,500	1,500	76	---	124,382
State and Private	58,946	622	---	-797	603	19	---	58,149
National Forest System	1,158,294	27,986	14,798	+12,697	---	491	---	1,170,991
Construction:								
Regular appropriation	261,736	4,631	---	---	4,578	53	---	261,736
Mount St. Helens								
National Monument:								
Contract authority	(9,915)	---	---	---	---	---	---	(9,915)
Liquidation of contract authority	---	---	---	---	---	---	+9,915	9,915
Total, Construction	261,736	4,631	---	---	4,578	53	+9,915	271,661
Land Acquisition	52,236	93	-27,070	---	---	93	-49,030 2/	9,806
Other Appropriated Funds	5,595	112	---	---	---	112	---	5,595
Permanent, Working Funds	140,684	3,133	---	-11,900	---	3,133	---	128,784
Payment to States	273,879	---	---	---	---	---	---	273,879
Trust Fund	197,616	4,592	---	---	---	4,592	---	197,616
Reforestation Trust Fund	30,000	825	---	---	---	825	---	30,000
TOTAL, Forest Service	2,307,868	44,951	-10,891 1/	-4,500	6,681	9,394	-39,115	2,270,853

1/ Transferred to the Department of Agriculture.

2/ Includes \$42,430,000 of budget authority and \$6,600,000 of prior year unobligated balances.

The 1987 Current Estimate includes several types of program changes. They are summarized as follows:

- A rescission is proposed for Land Acquisition totaling \$49,030,000 (\$42,430,000 from 1987 appropriations and \$6,600,000 from prior year unobligated balances.) Additional purchase of private lands by the Federal Government will be postponed in order to: (1) minimize reducing the current taxable land base for State and local government revenue purposes, (2) permit the Forest Service to concentrate its attention and limited resources on maintaining and improving their current extensive land base, and (3) help achieve the deficit reduction goals of the Balanced Budget and Deficit Control Act of 1985.

- A 1987 Supplemental is proposed for liquidation of contract authority provided in the 1987 Appropriations Act for road construction in the Mount St. Helens National Volcanic Monument.

- The 1987 Current Estimate also includes several types of changes necessary to cover the cost of pay and the new Federal Employees Retirement System (FERS). Many of the proposals do not alter the total Budget Authority available, they include: changes within an appropriation (reprogramming); absorptions; or the use of land acquisition unobligated balances to cover pay and FERS costs in other appropriations.

The changes to the 1987 Appropriations related to pay and FERS are:

Forest Research

A transfer of \$4,500,000 to CSRS for Competitive Grants has been made. The remaining \$1,500,000 appropriated for Competitive Grants will be reprogrammed within Research. In addition, \$1,381,000 will be transferred from Land Acquisition.

State and Private Forestry

A total of \$1,400,000 will be used from funds provided in the 1987 Appropriations Act for Lake Tahoe, NV. Of this amount, \$603,000 will be reprogrammed within State and Private Forestry and \$797,000 will be transferred to National Forest System.

National Forest System

A total of \$27,495,000 will be transferred to NFS from other appropriations. The transfer includes \$797,000 from State and Private Forestry, \$11,900,000 from Permanent Appropriations, and \$14,798,000 from Land Acquisition.

Construction

A total of \$4,578,000 will be used from funds provided in the 1987 Appropriations Act for Clear Creek, AL, and reprogrammed within Construction.

Land Acquisition

A total of \$27,070,000 will be transferred from unobligated balances to other appropriations. The transfer includes \$1,381,000 to Forest Research, \$14,798,000 to National Forest System, and \$10,891,000 to the Department of Agriculture. The total program change in Land Acquisition, including all rescissions and transfers, is \$76,100,000.

Permanent Appropriations

A total of \$11,900,000 will be transferred to National Forest System from funds provided in the 1987 Appropriations Act for Purchaser Elect.

Throughout the Explanatory Notes we use column 1, the appropriation, rather than column 8, the current estimate.

NEW FEDERAL EMPLOYEES' RETIREMENT SYSTEM

Effective January 1, 1987, the new Federal Employees' Retirement System (FERS) will be fully financed by agency and employee contributions. This system was authorized by Public Law 99-335, the Federal Employee Retirement Act of 1986, dated June 6, 1986.

The FY 1988 budget includes the estimated cost to the Forest Service of this new system. The following chart shows the President's Budget by appropriation, the FERS cost estimated for each appropriation, and the percent of each appropriation attributable to FERS.

Unit costs for FY 1988 incorporate FERS while previous years do not. Comparisons of FY 1988 and FY 1987 unit costs should take this change into account.

<u>Appropriation</u>	<u>President's Budget</u>	<u>FERS Portion</u>	<u>FERS % of Budget</u>
	(Dollars in thousands)		
Forest Research	\$ 122,212	\$ 4,113	3.4
State and Private Forestry	35,434	781	2.2
National Forest System	1,016,417	40,559	4.0
Construction	221,543	6,180	2.8
Land Acquisition	3,907	144	3.7
Other Appropriated Funds	57,796	0	0.0
Working Funds	145,189	3,407	2.3
Payment to States	26,056	0	0.0
Cooperative Work	250,369	6,504	2.6
Reforestation Trust Fund	<u>30,000</u>	<u>0</u>	<u>0.0</u>
Total	\$1,908,923	\$61,688	3.2

Summary of Receipts

	FY 1986 <u>Actual</u>	FY 1987 <u>Estimate</u> (Dollars in thousands)	FY 1988 <u>Estimate</u>
National Forest Fund:			
Power	\$ 753	\$ 900	\$ 1,100
Minerals	12,280	15,000	16,200
Land uses	3,462	4,300	4,450
Timber	726,046 ^{1/}	691,700	751,000
Grazing	7,484	7,500	7,500
Recreation, admission, and user fees .	<u>30,263</u>	<u>30,826</u>	<u>52,000</u> ^{2/}
Subtotal, National Forest Fund receipts	780,288	750,226	832,250
National Grasslands and Utilization:			
Minerals	30,634	36,000	40,000
Grazing	1,131	900	900
Other	<u>592</u>	<u>525</u>	<u>565</u>
Subtotal, National Grasslands receipts .	32,357	37,425	41,465
Timber sale area betterment (K-V)	151,460	189,000	190,000
Timber purchaser road credit	(117,026)	(116,000)	(118,000)
Subtotal, amount subject to payments to states and counties	1,081,131	1,092,651	1,181,715
Subtotal, receipts	964,105	976,651	1,063,715
Brush disposal	52,936	64,000	64,000
Timber salvage sales	20,677	27,000	27,000
Cooperative contributions	46,425	42,485	47,160
All other	<u>17,886</u>	<u>17,250</u>	<u>17,450</u>
Total Forest Service receipts	1,102,029	1,127,386	1,219,325
Mineral leases and power licenses on public domain lands ^{3/}	77,725	63,000	69,900
Oregon and California Grant Lands ^{4/}	<u>19,130</u>	<u>24,000</u>	<u>24,000</u>
Total revenues generated from lands managed by the Forest Service	\$1,198,884	\$1,214,386	\$1,313,225

^{1/} Includes one time receipt of \$154,590,000 in payment for sales returned under the Federal Timber Contract Payment Modification Act.

^{2/} Assumes increased receipts of \$16 million from proposed legislation in FY 1988.

^{3/} Represents noncash estimated receipts from NFS lands deposited directly to USDI.

^{4/} Represents Forest Service receipts transferred to USDI for special O&C account.

Three-Year Summary of Appropriations

	FY 1986 <u>Actual</u>	FY 1987 Approp. Enacted to Date (Dollars in thousands)	FY 1988 <u>Estimate</u>
Forest Research:			
Regular research appropriation	\$ 113,621	\$ 122,882	\$ 122,212
Special projects, competitive grants ...	<u>6,506</u> ^{1/}	<u>6,000</u> ^{2/}	<u>--</u>
Subtotal, Forest Research	120,127	128,882	122,212
State and Private Forestry	55,321	58,946	35,434
National Forest System	1,168,924	1,158,294	1,016,417
Construction	214,654	261,736	221,543
Mount St. Helens National Monument	--	(9,915) ^{3/}	--
Land Acquisition	31,356	52,236	3,907
Acquisition of Lands for National Forests, Special Acts	744	966	966
Acquisition of Lands to Complete land exchanges	1,086	895	990
Miscellaneous Trust Fund	12	90	90
Range Betterment Fund	3,635	3,644	3,750
Operation and Maintenance of Recreation Facilities	--	--	52,000
Youth Conservation Corps	(3,234) ^{4/}	(1,000) ^{4/}	--
Permanent Appropriations, Working Funds:			
Expenses, Brush Disposal	52,936	47,835	54,438
Licensee programs:			
Smokey Bear and Woodsy Owl	95	100	100
Restoration of Forest Lands and Improvements	176	100	100
Timber Purchaser Roads Constructed by the Forest Service	22,911	15,434	21,037
Timber Salvage Sales	20,677	26,000	18,635
Tongass Timber Supply Fund	51,802	45,815	45,379
Operation and Maintenance of Quarters ..	<u>5,352</u>	<u>5,400</u>	<u>5,500</u>
Subtotal, Working Funds	153,949	140,684	145,189
Permanent Appropriations, Payment to States:			
Payment to Minnesota	1,432	716	716
Payments to Counties, National Grasslands	21,842	9,356	3,765 ^{6/}
Payments to States, National Forest Fund	<u>474,310</u>	<u>263,807</u>	<u>21,575</u> ^{5/}
Subtotal, Payments to States	497,584 ^{5/}	273,879	26,056
Total, Permanent Appropriations	653,467	414,563	171,245
Trust Funds	202,517	197,616	250,369
Reforestation Trust Fund	30,305	30,000	30,000
TOTAL, FOREST SERVICE	\$2,480,214	\$2,307,868	\$1,908,923

^{1/} These funds have been transferred to the account of the competitive Research Grants Office, in Science and Education, Department of Agriculture, which administers the competitive research grants program.

^{2/} \$4,500,000 has been transferred to the account of the Competitive Research Grants Office in the Cooperative State Research Service. The remaining \$1,500,000 will be used to cover pay and FERS costs within the research budget line item.

^{3/} Contract authority was made available in the 1987 Appropriations Act for road construction. A FY 1987 supplemental has been submitted with the FY 1988 budget request to liquidate obligations incurred by the Forest Service.

^{4/} The YCC program is financed with funds available to the Forest Service.

^{5/} Represents change in accounting procedure. See Payments to States section of the Explanatory Notes.

^{6/} Legislation proposed to change payments to States and counties from gross receipts sharing to a net receipts basis.

Base Calculation

	1987 <u>Appropriation</u> (Dollars in thousands)	Base Changes (in thousands)	1988 <u>Base</u> ^{1/}
Forest Research	\$ 128,882	\$ +7,019	\$ 135,901
State and Private Forestry	58,946	+1,761	60,707
National Forest System	1,158,294	+69,869	1,228,163
Construction	261,736	-261,736 ^{2/}	--
Land Acquisition	52,236	-52,236 ^{2/}	--
Acquisition of Lands for National Forests, Special Acts	966	--	966
Acquisition of Lands to Complete Land Exchanges	895	--	895
Miscellaneous Trust Fund	90	--	90
Range Betterment Fund	3,644	--	3,644
Operation and Maintenance of Recreation Facilities	--	--	--
Youth Conservation Corps	(1,000)	--	(1,000)
Permanent Appropriations	414,563	-9,517 ^{1/}	405,046
Trust Funds	197,616	+8,759	206,375
Reforestation Trust Fund	<u>30,000</u>	<u>--</u>	<u>30,000</u>
Total	2,307,868	-236,081	2,071,787

^{1/} The FY 1988 base was developed by adding standard level user charges, 1987 pay costs, and the cost of the Federal Employees' Retirement System (FERS) to the FY 1987 appropriation.

^{2/} The FY 1988 proposals for construction, land acquisition, and timber purchaser roads constructed by the Forest Service are justified from a zero base.

Forest Research

	1986 Actual	1987 Approp. Enacted To Date ^{1/}	1988 Base (Dollars	1988 Estimate in thousands)	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
Fire and atmos- pheric sciences research \$	7,716	8,046	8,504	8,336	+290	-168
FTE	162	163	163	161	-2	-2
Forest insect and disease research \$	20,186	21,500	22,743	21,028	-472	-1,715
FTE	416	424	424	408	-16	-16
Forest inventory and analysis ... \$	16,316	17,322	18,369	16,805	-517	-1,564
FTE	355	360	360	345	-15	-15
Renewable resources economics research \$	4,370	4,370	4,638	4,648	+278	+10
FTE	92	92	92	92	--	--
Trees and timber management research \$	21,502	23,302	24,748	23,681	+379	-1,067
FTE	493	507	507	496	-11	-11
Watershed management and rehabilitation research \$	14,850	16,110	16,808	15,628	-482	-1,180
FTE	239	246	246	234	-12	-12
Wildlife, range, and fish habitat research \$	9,072	11,491	12,143	11,459	-32	-684
FTE	205	229	229	220	-9	-9
Forest recreation research \$	2,049	2,377	2,498	2,427	+50	-71
FTE	40	42	42	41	-1	-1
Forest products and harvesting research \$	17,560	18,364	19,450	18,200	-164	-1,250
FTE	378	382	382	370	-12	-12
Subtotal \$	113,621	122,882	129,901	122,212	-670	-7,689
Special projects, competitive grants \$	6,506	6,000 ^{2/}	6,000	--	-6,000	-6,000
FTE	--	--	--	--	--	--
TOTAL \$	120,127	128,882	135,901	122,212	-6,670	-13,689
FTE	2,380	2,445	2,445	2,367	-78	-78

^{1/}The amounts shown do not reflect the proposed transfer of \$1,381,000 from the unobligated balance in Land Acquisition and reprogramming of \$1,500,000 from competitive grants to cover pay and FERS costs in FY 1987.

^{2/} \$4,500,000 has been transferred to the account of the Competitive Research Grants Office in the Cooperative State Research Service. The remaining \$1,500,000 will be used to cover pay and FERS costs within the Research budget line item.

Authorities

P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944 (7 U.S.C. 2250). Section 703.

Erect, alter, and repair buildings necessary to carry out authorized work.

P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act, August 17, 1974, as amended; (16 U.S.C. 1601).

Directs the Forest Service to periodically prepare a long term renewable resource assessment and program.

P.L. 95-113, Food and Agriculture Act of 1977 (Title XIV), as amended December 22, 1981 and as amended by The Food Security Act of December 23, 1985 (7 U.S.C. 1281 note and 7 U.S.C. 3221, 3222, 3291, 3318-3319d).

Provides for increased cooperation and coordination in the performance of agricultural research by Federal departments and agencies, the States, State agricultural experiment stations, colleges and universities, and other user groups (7 U.S.C. 1281).

Authorizes the Secretary of Agriculture to engage in international agricultural research and extension, including to "assist the Agency for International Development with agricultural research and extension programs in developing countries." Designates USDA as the lead agency of the Federal Government for agricultural research, extension, and teaching. Eliminates restrictions on use of cooperative agreements with universities, and permits cost-reimbursable agreements with State cooperating institutions without competition.

P.L. 95-307, Forest and Rangeland Renewable Resources Research Act, June 30, 1978 (16 U.S.C. 1641 et. seq., Sections 1-7).

Updates, clarifies, and consolidates forest and range research authorities; provides a specific forest and rangeland link to Title XIV of the 1977 Farm Bill, the National Forest Management Act of 1978 (NFMA), and the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA); authorizes competitive grants; expands authority for foreign research cooperation.

Such sums as are necessary; no expiration date.

P.L. 95-495, Act of October 21, 1978 (92 Stat. 1649). Section 6(d). Establishes Boundary Waters Canoe Area Wilderness and Boundary Waters Canoe Area Mining Protection Area.

Authorization: \$8,000,000 for resource management on the Superior National Forest; expires September 30, 1990.

**Appropriation
Summary
Statement**

Research Mission

The mission of Forest Service research is to develop knowledge and technology that increase economic and environmental values on America's 1.6 billion acres of forest and related rangelands.

A review of the long-term renewable resources situation in the United States shows a growing gap between the supply of many natural resources and the demands placed on those resources. Through scientific management of its forests and rangelands, however, the United States is capable of producing three times as much forage and twice as much timber as it currently does, while maintaining land productivity and protecting environmental quality.

To help achieve these goals, Forest Service research:

- Develops scientific and technical information needed to maintain and increase the productivity of public and private forest resources.
- Provides scientific information needed in the resolution of natural resource policy issues.
- Addresses short- and long-term problems in basic and applied research not dealt with by the private sector.
- Provides information and guidance for private forest landowners, industry and commerce, State agencies and commissions, and individual citizens.
- Supports international forestry through cooperation with other U.S. agencies, United Nations agencies, and foreign countries.

Research Administration

Forest Service research is carried out through a network of eight Forest and Range Experiment Stations and the Forest Products Laboratory at Madison, WI. There are about 200 research work units at 76 locations throughout the United States, Puerto Rico, and the Pacific Trust Islands.

**Forest and Range Experiment Stations,
Forest Products Laboratory**



The Forest Service Deputy Chief for Research directs the research program, with support from seven Washington Office technical Staff Directors and Directors of the Forest Experiment Stations and the Forest Products Laboratory. About 800 scientists in the program produce more than 2,300 scientific publications annually.

Research Coordination

Many Forest Service field headquarters and laboratories are located on or near university or college campuses. In addition to the competitive grants program, about 8.5 percent of the Forest Service research budget supports research in colleges, universities, other research organizations, and industry.

The proximity and support of outside research complements Forest Service programs, fosters strong coordination among research organizations, and frequently helps achieve goals without increasing the Federal work force. Although results from privately financed research belong to the sponsors, results from Forest Service research are made public to serve a broad clientele.

Research Planning

The Forest Service plans long-term research in conjunction with the Nation's forestry schools. While some research is done at national laboratories, most is done at dispersed locations, close to specific forest and rangeland problems.

Forest Service research aims at high priority technology needs in four geographical planning regions (Northeast, North Central, Southern, and Western) and the Forest Products Laboratory. Scientific research goals for each region are formulated by groups of research and resource managers in the Forest Service, the Cooperative State Research Service, forest industries, forestry schools, and agricultural experiment stations. National research programs result from analyzing and aggregating regional plans and considering annual program budget submissions by the experiment stations and the Forest Products Laboratory.

The Forest Service maintains timeliness and focus of its research through periodic review, evaluation, revision, and/or termination of research work plans at 5-year intervals. Washington Office and field supervisors, with invited outside participants, also conduct intermediate reviews of research. These reviews are often used to redirect programs to emphasize new areas of scientific inquiry in response to changing national and regional priorities.

Criteria for Program Changes

The following criteria guide research program changes:

- Does the research match the mission and goals of the Administration, Department of Agriculture, and Forest Service?
- Are the research problems important and timely (i.e., what improvements will result from research applications)?
- Who will the research affect and in what ways?
- Does the research serve critical consumer needs (such as lumber standards and fire safety)?
- Are adequate personnel, funding, and leadership available?

- Do the payoffs from application of expected research results warrant the research costs.?

- Is research nearing completion or can it be delayed?

- Is the research long-term and higher risk, requiring coordinated planning, continuity, and a stable research environment?

- Can the research be done by organizations with a shorter term perspective and narrower geographic focus?

FY 1988 Program Changes

Since FY 1980, the Forest Service has streamlined its research organization. Cumulatively through FY 1987, the Forest Service will have closed 9 research locations, reduced the number research work units by about 20 percent, and reduced the number of full-time equivalent employees by about 30 percent.

Personnel, procurement, information management, and other support services for Forest Service research programs have been merged with equivalent staffs at several Forest Service regional offices and national forest headquarters at significant cost savings.

The proposal for forest research in FY 1988 is 10 percent less than the FY 1988 base. This decrease continues to reflect initiatives to improve efficiency by streamlining the Forest Service's research organization and directing research toward problems of the highest priority, while maintaining a minimum research capability in all essential program areas.

Proposed changes in FY 1988 include:

- Reducing the work force by 78 full-time equivalents.

- Reducing atmospheric deposition research from \$12,690,000 to \$10,580,000.

- Reducing forest inventory and analysis research by \$1,564,000, including a reduction of \$600,000 in the national vegetation survey.

- Reducing trees and timber management research by \$1,067,000, forest insect and disease research by \$1,715,000, forest products and harvesting research by \$1,250,000, and watershed management and rehabilitation research by \$1,180,000.

- Terminating the competitive forestry research grants program.

- Combining units or support staff to reduce costs, directing research toward the highest priority problems, and accelerating closeout of nearly completed work.

- Terminating a research work unit and closing the research laboratory at University Park, PA. The research work unit is studying the effects of atmospheric deposition on Appalachian forest watersheds and water quality from municipal watersheds.

Planned FY 1988 actions and their impacts are described in more detail under the appropriate budget activity.

FY 1988 Special Research Initiatives for the Future

The Forest Service will build on its continuing research program to emphasize six research initiatives during FY 1988:

- Forest/atmosphere interactions.
- Wildland/urban interface.
- International trade in timber and wood products.
- Biotechnology and the forests of tomorrow.
- Critical wildlife and fish/timber management interactions.
- Southern forest productivity.

The research initiative displays do not include national program management (Washington office) funding.

Forest/Atmosphere Interactions

	FY 1986 <u>Actual</u>	FY 1987 Approp. Enacted to Date (Dollars	FY 1988 Base in Thousands)	FY 1988 Estimate
Effects on terrestrial ecosystems:				
Forest response program:				
Forest research cooperatives	\$4,850	\$6,310	\$6,590	\$6,590
National vegetation survey	1,860	1,235	1,300	635
Specific ecosystem studies	1,590	2,911	3,003	1,983
Effects on aquatic ecosystems	1,270	1,599	1,652	1,242
Characterizing wet deposition	<u>135</u>	<u>135</u>	<u>145</u>	<u>130</u>
Total	\$ 9,705	\$12,190	\$12,690	\$10,580

The debate over the possible biological effects of acid rain and other air pollutants on forests is a major environmental issue in the United States. This problem is also economically significant. It is estimated that billions of dollars in costs could be imposed on industry if severe pollution controls are legislated. The Forest Service is playing a key role in this debate by doing research to determine the effects of air pollution on forests and aquatic systems. An emerging issue is the potential effects of atmospheric changes, such as temperature and chemical composition, on forests.

Current research on atmospheric deposition is focused on: (1) assessing its effects on terrestrial and aquatic ecosystems, and (2) determining the chemical characteristics of atmospheric deposition. The Forest Service is also evaluating the present chemical climate of wildlands to find out if and how land and water resources are changing in response to acid rain. The Forest Service research effort on atmospheric deposition is a major part of the interagency National Acid Precipitation Assessment Program (NAPAP). This program is designed specifically to address major policy questions about effects of air pollution on U.S. resources.

Specific ecosystem studies of acid deposition include research on California and Pacific Northwest forests, Rocky Mountain high-elevation forests and alpine ecosystems, and several eastern mixed forests.

The Forest Response Research Program, undertaken in cooperation with EPA, includes the national vegetation survey and four research cooperatives--each focused on the major regional forest types of the North, South, and West.

Watershed studies in New England, Pennsylvania, the Central and Southern Appalachians, the Northern Lake States, and the South-central United States determine how watersheds interact with acid rain to produce changes in soil, water, and vegetation. This research is critical to answering questions about how acid rain changes the chemistry of lakes and streams. Forest Service research operates 11 wet-deposition recording stations to support this research and as part of the National Atmospheric Deposition Program.

Forest Service research results include:

- Sulfate deposition is increasing in the Southeastern United States, and some watersheds are reaching the point where they can no longer buffer its acidifying effects.
- Soil organic matter plays a key role reducing the effects of acidic rain on leaching of soil nutrients in New England.
- Acidic rainstorms and rapid melting of acidic snow temporarily increase the acidity of lakes and streams.
- A detailed set of sampling protocols has been developed to characterize the current and future condition of wilderness areas exposed to acidic deposition.

Over the next decade the Forest Service will continue to broaden its acid deposition research into a comprehensive program addressing all air pollutants potentially damaging to forests and watersheds. This research will also be important in determining the effects of long-term change in the atmosphere on forest health, growth, and composition. If atmospheric characteristics such as temperature and chemical composition are changing due to human activities, it is critical to understand the effects on forest ecosystems. Therefore, the current program of atmospheric deposition research will gradually evolve to examine complex and significant issues associated with change in the global climate.

The majority of the proposed reduction in atmospheric deposition research from FY 1987 to the FY 1988 estimate results from reduction in the lower priority national vegetative survey and specific ecosystem studies.

Wildland/Urban Interface

	FY 1986 Actual	FY 1987 Enacted to Date	FY 1988 Base	FY 1988 Estimate
	(Dollars in thousands)			
Fire management	\$ 0	\$ 300	\$ 315	\$ 300
Recreation	<u>0</u>	<u>150</u>	<u>158</u>	<u>150</u>
Total	\$ 0	\$ 450	\$ 473	\$ 450

Where large urban areas are adjacent to State, Federal, and private forest lands, the intermixing of city and wildland has created opportunities to extend the use of wildlands to greater segments of the population. This situation also has brought about major problems in fire protection, land use planning, and recreation impacts.

The potential for a large fire disaster involving both property and loss of human life is increasing as cities and wildlands intermix. Recent fires in the South, Southeast, and West attest to the potential size of this threat. Local, State, and Federal fire suppression capabilities are quite often inadequate. Research has begun developing fire safety and planning guides, fire-behavior prediction systems, and fire suppression tools for these unique fire-prone areas.

The presence of large communities adjacent to forest lands also seriously affects the Nation's wildland recreation resources. Picnicking, camping, and hunting are replaced by crowds, large organized groups, high demand for off-road vehicle areas, and hang gliding. Many urban interface areas receive excessive use, which leads to unacceptable degradation of the recreation site. Additional problems arise in law enforcement and in the need to tailor interpretive and recreation management activities to the special demands of concentrated use.

Forest research can help land managers grasp these opportunities to serve greater number of people, while still avoiding increased fire and site-deterioration hazards by conducting research on (1) improved communications with users, especially non-English speaking ethnic groups; (2) accelerated vegetative rehabilitation of overused areas; (3) fire behavior prediction in interface areas; (4) fire safety and prevention guidelines; and (5) land use planning concepts for minimizing the fire hazards created by mixing structures with wildlands.

International Trade in Timber and Wood Products

	FY 1986 Actual	FY 1987 Approp. Enacted to Date	FY 1988 Base	FY 1988 Estimate
	(Dollars in thousands)			
Analysis of market trends	\$ 190	\$ 188	\$ 197	\$ 138
Analysis of trade constraints and trade determinants	136	162	170	342
Modeling trade flows	<u>122</u>	<u>120</u>	<u>126</u>	<u>120</u>
Total	\$ 448	\$ 470	\$ 493	\$ 600

International trade in forest products has increased substantially in the last 15 years, and the United States has a considerable forest-products trade deficit. Although we export about 15 percent of the timber products we produce, America is the world's largest importer of forest products. In 1985, total exports of forest products dropped to \$6.7 billion while imports increased to \$12.5 billion, creating a forest-products trade deficit of almost \$6 billion. With our vast forest resource base, we could transform our Nation into a net exporter of forest products and, thus, increase domestic employment and also help improve our overall foreign trade balance.

Forest Service economics research helps policymakers formulate strategies to increase wood export opportunities. It provides analyses of current trade flows, identification of factors influencing trade flows, improved methodologies for trade analyses, and the present and prospective impacts of international trade on the U.S. timber supply and demand situation.

Examples of current findings include:

- The Caribbean area is a major market for U.S. forest products, especially southern pine structural lumber, with exports to that area totaling \$157 million in 1983.

- Eastern softwood solid wood-product exports totaled \$350 million in 1985, with exports primarily to western Europe, the Caribbean region, and Canada.

- Recent changes in the exchange values between the U.S. dollar and the Japanese yen will affect forest products trade prospects with Japan, perhaps less favorably than anticipated since the exchange rate shifts may precipitate a slowdown in the Japanese economy and market demand.

- Currency exchange rates between the United States and Canada favor increased importation of Canadian forest products, but other cost factors are even more significant.

Future research will include study of:

- The impact of international forest products trade on domestic forest products markets.

- The roles that currency exchange rates, institutional considerations, tariffs, and consumer preferences play in limiting exports of U.S. wood products to major overseas markets.

- The suitability of existing port facilities for handling exports of timber and wood products.

- The impact of changing pulp-manufacturing technology on world trade in pulp and paper products.

- How effectively U.S. hardwoods can compete in world markets with supply sources from other countries.

- Opportunities for increasing shipments of U.S. hardwoods for housing construction in mainland Asia.

Biotechnology and the Forests of Tomorrow

	FY 1986 Actual	FY 1987 Approp. Enacted to Date	FY 1988 Base	FY 1988 Estimate
	(Dollars in thousands)			
Tree improvement	\$ 924	\$1,338	\$1,432	\$1,432
Control of pests	912	1,290	1,364	1,360
Wood processing	124	146	156	156
Total	\$1,960	\$2,774	\$2,952	\$2,948

Biotechnology, including genetic engineering, will enable advances in timber growth and pest controls to be made more quickly than through conventional research methods. For example, it is expected that biotechnology will lead to new lines of disease-resistant trees, nonchemical controls for insect pests, and major reductions in environmental damage associated with wood processing.

Forest Service biotechnology research has already found that:

- It is possible to isolate plant cells and inoculate them with disease-causing fungi to determine the relative resistance of different genetic lines to the disease.
- It is feasible to isolate an herbicide-tolerant gene from a common Salmonella bacterium and transfer genetically the tolerance into a hybrid poplar. This gene transfer could lead to more cost-effective control of unwanted forest vegetation.
- Using a virus, a microbial (nonchemical) insecticide for suppressing the Douglas-fir tussock moth has been developed. This new insecticide has been registered with the Environmental Protection Agency.
- The fungus that causes white-rot decay in wood was used to discover and isolate an enzyme that breaks down wood cell-wall constituents without toxic chemicals. This development in bioprocessing will lessen the chlorine use for bleaching wood pulp and reduce energy consumption in wood processing. This discovery suggests that wood-processing chemistry can be made less dangerous to the environment.

In the future, Forest Service scientists hope to use biotechnology in forestry research to improve tree growth rates, cold and drought tolerance, nitrogen-fixing capabilities, and tolerance to herbicides used in brush management.

Forest Service scientists will be evaluating forest tree species for natural resistance to insect and disease attack and determining how to adjust the genetic code of nonresistant trees to incorporate this quality. This research may show how to screen trees for tolerance to air pollutants as well. Future research will also develop more effective agents for the biological control of insect pests.

Discovering the enzyme to break down woody cells has opened the door for biotechnology in wood processing, biopulping, biobleaching, converting lignin to useful chemicals, and cleaning up noxious wastes from pulp and paper mills. Biotechnology research will also lead to biological methods for controlling wood decay.

Critical Wildlife and Fish/Timber Management Interactions

	FY 1986 Actual	FY 1987 Enacted to Date	FY 1988 Base	FY 1988 Estimate
	(Dollars in thousands)			
Threatened and endangered species	\$ 394	\$ 504	\$ 533	\$ 418
Old-growth				
Douglas-fir	1,008	2,490	2,631	2,318
Other old-growth	481	629	665	567
Salmon and trout	828	985	1,041	1,036
Other critical wildlife/timber management interactions	<u>335</u>	<u>335</u>	<u>354</u>	<u>307</u>
Total	\$3,046	\$4,943	\$5,224	\$4,646

Complying with the Endangered Species Act and the National Forest Management Act can lead to conflicts between protecting wildlife and fish and producing a consistent flow of forest products from the resource base. The number of conflicts between forest products production and wildlife protection is increasing nationally. In the Pacific Northwest, significant acreages of highly valuable Douglas-fir, old-growth forests may need to be reserved from timber harvest to maintain habitat for the northern spotted owl. Integration of species conservation with forest products production is seriously impeded by inadequate knowledge of wildlife and fish habitat requirements and their relation to timber management.

Among the highest priority research is study of those species that are most likely to be impacted by planned forest management activities. This includes, but is not limited to, study of wildlife associated with old-growth forest habitats, interactions between timber management and fish, and threatened and endangered species.

Here are some examples of research:

- The red-cockaded woodpecker research formed the basis for the new recovery plan for this species. In addition, by more precisely defining the species' habitat requirements, the Forest Service now has the capability to harvest up to 20 percent more timber from Florida's national forests alone.

- Some wildlife species depend on or reach their highest populations in forests that are older than the ideal age for economic harvest for wood products. A portion of our research examined how to manage some of the 85 species of North American birds and 49 species of mammals that use tree cavities characteristic of older forest stands and at the same time maintain an efficient timber-management program.

- The northern spotted owl, a sensitive species, is associated with 250 years and older stands of Douglas-fir in Washington, Oregon, and Northern California. Since this species could be irreparably harmed by indiscriminate and large-scale cutting of such stands, Forest Service research is focusing on this species' habitat use, movements, breeding activity and success, juvenile dispersal, prey ecology, and potential competition with barred owls. Research will be used to minimize the economic impact of providing for spotted owl habitat.

- The National Forest System waters of California, Alaska, and the Northwest provide more than half the rearing and spawning habitat for Pacific anadromous salmon and trout, producing annually more than 118 million pounds of fish valued at approximately \$34 million. Forest Service research in Alaska, the Pacific Northwest, Northern California, and the Intermountain West is determining how to manage forests for both timber and anadromous salmonoids.

Initiatives for further critical wildlife and fish habitat research include:

- Major new research on the spotted owl in Washington, Oregon, and California will investigate geographic variation in habitat requirements and owl population dynamics.

- Research in Douglas-fir forests of the Pacific Northwest will feature species, such as the Vaux's swift, which are also closely associated with old-growth habitat.

- New directions in red-cockaded woodpecker research include testing how populations of this species respond to habitat manipulation and finding out how much habitat is required to support a viable population.

- A study of Sitka black-tailed deer, a species closely associated with old-growth forests of southeast Alaska, will test a model to predict the response of deer to conversion of old-growth to second-growth forests.

- Research on the grizzly bear will develop and test of habitat models and study the ecology of bear food plants as related to forest management activities.

- A new study of elk and deer in eastern Oregon will include determining their response to various methods of timber management.

- A fish habitat research program will investigate the relationship between trout and forest management in the Appalachian Mountains.

Southern Forest Productivity

	FY 1986 Actual	FY 1987 Approp. Enacted to Date	FY 1988 Base	FY 1988 Estimate
	(Dollars in thousands)			
Timber productivity	\$1,958	\$2,000	\$2,136	\$2,129
Water quality	454	500	721	557
Wildlife/fisheries	267	472	507	435
Insects and diseases	1,943	2,000	2,118	1,970
Land use and economics	426	500	531	463
Harvesting and processing	<u>520</u>	<u>700</u>	<u>747</u>	<u>681</u>
Total	\$5,568	\$6,172	\$6,760	\$6,235

Research projections from the 1960s suggesting that higher demands for wood products would be met primarily from increased timber harvest in the South have proven accurate. Unprecedented demands for timber products in the 1970s were met in large measure by expansion of the southern timber industries.

The South is well suited to becoming the most important woodbasket for America and is expected to produce enough wood to meet half of the Nation's needs by the year 2000. However, by the late 1970s, concerns were raised about the capability of the southern softwood timber resource to support continued expansion of the forest industries. Multiple use and environmental conflicts so prevalent on predominantly Federal land in the West were also increasing in the South.

The following are highlights of recent research on the southern timber resource:

- Net annual timber growth has leveled off or begun to decline.
- Mortality from insects and diseases is increasing at a significant rate.

- Timber removals have been rising rapidly because of increased harvests. Softwood removals are above net annual growth over large areas of the South.

- The South is facing a future of rising raw material prices, much lower rates of growth in timber harvests, and declines in employment in the forest industries.

- There are many opportunities to increase forest productivity in the South, but expanded programs of protection, education, financial assistance, research, and management are essential because timber supply usually does not increase in proportion to price.

Developing ways to achieve more intensive management and better utilization of the southern timber resource, while addressing concerns for wildlife and water quality, requires integrated and multidisciplinary research in cooperation with universities and forest industries. Research on ways to overcome potential multiple use conflicts and environmental constraints could permit the South's forestry resource to achieve its potential while improving other forest resources.

Research is needed to:

- Manage competing vegetation while protecting all forest resources, with emphasis on alternatives to herbicides.

- More fully understand forest productivity dynamics and improve predictions of forest growth and yield.

- Determine effects of timber management practices on wildlife, fisheries, and water quality so that timber supplies can be increased while protecting the quality of the environment.

- Determine the causes and effects of changes in landownership and land use on timber supply, and identify opportunities for increasing forest product exports and revitalizing rural economies.

- Develop better methods of harvesting and processing to improve utilization and increase product yield.

- Develop new ways to reduce the unacceptable impact of insects and diseases.

Fire and Atmospheric Sciences Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Fire and atmospheric sciences research	\$ 7,716	8,046	8,504	8,336	-168
FTE	162	163	163	161	-2

Objective To improve knowledge of the initiation, behavior, and effects of fire in forest and range environments. To develop better methods of preventing and controlling wildfires and using prescribed fires for enhanced forest resource protection and production. To better understand atmospheric effects on forest productivity and health, and biosphere/atmosphere relationships.

Program description Forest Service scientists provide Federal, State, and local fire management agencies with the knowledge and scientific tools for safe and efficient fire control at reduced cost. Firefighting is expensive; combined Federal and State fire protection services cost over \$500 million dollars annually, with fire losses approaching \$2 billion.

In many parts of the country, subdivisions and commercial development are rapidly expanding into wildland environments. This situation poses a critical challenge to fire managers by greatly increasing the economic and esthetic values at risk, the threat to human lives, and the complexity of tactical fire command decisions.

Forest Service fire scientists are helping managers address this problem by providing information on how to (1) use fire, (2) predict its behavior and effects, and (3) manage it strategically and tactically.

Atmospheric scientists study how weather factors affect fire danger and fire behavior and how forest managers can better use prescribed fire while minimizing the production and adverse effects of smoke. In addition, Forest Service researchers are investigating the interactions between the forest and air from environments as diverse as the hills overlooking the Los Angeles basin to pristine alpine wilderness in the high Rockies.

Examples of recent accomplishments follow:

- Fundamentals of fire behavior. Reliable predictions of fire behavior help suppress wildfires more effectively and improve the cost, safety, and success of fire use in natural resource management. After 20 years of research on the behavior of free-burning fires in wildland fuels, we have both a basic understanding of surface fire phenomenology and decisionmaking aids to help managers apply this knowledge.

Forest Service scientists have developed two automated fire behavior/weather-related systems: the National Fire Danger Rating System which tracks trends in fire danger over broad geographic areas, and BEHAVE, a system which aids in predicting fire behavior for specific sites. Combined cost savings attributable to these two products should be \$3 million to \$10 million annually, depending on the severity of the fire season. Components of these systems are now available on hand-held calculators to further aid in field application.

Crown fires, involving active fire spread through the upper portions of forest trees, pose some of the most challenging and destructive situations encountered by wildfire protection personnel. Computer models cannot yet predict the behavior of crown fires, but scientists at the Intermountain Fire Sciences Laboratory are working on a series of mathematical models that will evolve over the next several years into a definitive prediction system for crown-fire behavior.

By extending fire behavior prediction capability and enhancing the ability to forecast and manage smoke emissions and soil-heating processes, fire managers will be better equipped to protect forest resources from wildfires and to more effectively use prescribed fires to enhance those resources in a safe and environmentally sound manner.



Experiments at the Intermountain Fire Sciences Laboratory have told us a great deal about how steady-state line fires spread at ground level--the burning conditions for most forest and range fires.

- Tracking movements of gypsy moth larvae through meteorology. Knowing how far and how fast a new infestation of gypsy moth will spread is a major factor in determining how to control the outbreak. Scientists at the Pacific Southwest Station have developed computerized wind models that, when used in conjunction with gypsy moth life cycles information, predict the spread of the moth from a newly discovered infestation. Using models that were originally developed to portray how the wind would affect forest-fire spread and smoke dispersion, computer-generated graphic simulations show the probable concentrations of moth larvae on a map of the outbreak area.

- Prescribed fire: learning to manage smoke and predict soil temperatures. In many parts of the country, prescribed burning is necessary for economic management of forest ecosystems. Use of this tool may be restricted unless we can minimize the smoke generated and come to a clearer understanding of how flame and soil characteristics affect subsurface soil temperatures.

Scientists at the Pacific Northwest Station have combined knowledge of fire-science theory with field experiments to determine what combinations of harvesting practices and weather conditions produce the least smoke for a given prescribed-burning objective. This research has led to development of a new smoke-management and emissions inventory system. This system takes into account such factors as size of logging residue materials, slope of the terrain, time since last rainfall, and several weather parameters, to help managers predict when to use prescribed fire. All national forests in the Forest Service's Pacific Northwest Region and the State of Oregon Department of Forestry have adopted the new system.

The intensity, depth, and duration of soil heating during both wildfires and prescribed burns affect soil stability and fertility as well as subsequent vegetation responses. Being able to predict these responses in advance is critical in setting up an effective prescribed-burning program. Scientists at the Pacific Southwest Station have developed a predictive mathematical model of heat transfer to soils. The model has been validated against actual measurements of soil temperature during experimental burns. Use of the soil-heating model will improve the effectiveness of prescribed burning as a means of managing wildland vegetation, especially in the highly flammable chaparral communities of southern California.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Fire and atmospheric sciences research ... \$	8,504	8,336	-168
FTE	163	161	-2

A decrease of \$168,000 is proposed from the 1988 base.

The fire and atmospheric sciences research program has been restructured to provide funding to continue highest priority core fire research, to begin new research required to meet emerging fire management needs, and to better address issues deriving from forest-atmosphere interactions. Restructuring has occurred through program consolidation and redirection. The decrease will delay full implementation of the fire research program restructuring in the following ways:

- Forgoing acceleration of fundamental research on combustion chemistry (Missoula, MT).
- Delaying new research on smoke management and fire danger/behavior in the East (Macon, GA).
- Forgoing acceleration of prescribed fire research applied to chaparral in the wildland/urban interface zone of southern California (Riverside, CA).

**Object class
information**

Salaries and benefits	-71
Travel	-4
Rent, communications, and utilities	-6
Other services	-17
Supplies, materials, and equipment	-13
Grants, subsidies, and contributions	-57
Total	-168

Forest Insect and Disease Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Forest insect and disease research	\$ 20,186	21,500	22,743	21,028	-1,715
FTE	416	424	424	408	-16

Objective To develop technology which prevents or reduces forest and rangeland damage by insects and diseases, and which protects wood in use and in storage from insects and decay.

Program description The program provides the means to:

- Define, measure, and evaluate the economic, social, and environmental impacts of destructive insects and diseases on forest resources and on wood in storage and use.
- Detect, assess, and predict changes and trends in the distribution and abundance of pest populations and their impacts on resource values.
- Reduce pest populations and damage to acceptable levels through control techniques and management strategies that are ecologically sound, economical, and environmentally safe.

The research covers bark beetles; leaf-eating insects; cone and seed pests; wood products pests; root rots; rust and canker diseases; diebacks and declines, stress caused by air pollution (including acid rain); and other pest problems.

Developing methods for early detection of insect and disease problems and preventing outbreaks are emphasized.

Results are used to develop environmentally safe and effective strategies for pest management based upon biological, chemical, silvicultural, and other controls.

Examples of recent accomplishments follow:

- Identifying and managing forests susceptible to mountain pine beetle. Timber losses caused by the mountain pine beetle can seriously affect the yield and flow of wood products from the conifer forests of the West. Outbreaks disrupt management plans and affect local and regional economies, increase fire hazards, and diminish recreational values and aesthetics. Twenty years of research on mountain pine beetle epidemics have led to the development of (1) methods to identify stands susceptible to beetle attack, (2) techniques to predict lodgepole pine losses caused by the beetle, and (3) silvicultural prescriptions to help prevent or reduce these losses.

Forest Service scientists have developed computer models to predict the expected rate and amount of tree loss once a stand becomes infested. However, more helpful in the long run are silvicultural guidelines to prevent mountain pine beetle establishment by manipulating tree and stand conditions to reduce vulnerability to beetle infestation.

The newest mountain pine beetle research focuses on increasing understanding of beetle dynamics when populations are at endemic (low) levels. Data suggest that the beetle is a "follower" during epidemic periods, as reflected by its preference for lodgepole pines infected by root rot or attacked by secondary bark beetles. The change of mountain pine beetle from "leader" during epidemics, where it initiates the attack, to "follower" during endemic periods, where it follows on the heels of other pest invaders, appears to be a reflection of changes in beetle genetics. Understanding and eventually manipulating these genetic factors should lead to sound preventive strategies to curb losses by this major forest pest.



The unthinned stand of lodgepole pine on the left, in the Wasatch National Forest in northern Utah, sustained heavy losses to mountain pine beetle while the adjacent thinned stand (right) experienced no pine beetle damage.

- Fumigants control decay in timbers. When deep "seasoning checks" develop in exterior structural timbers, decay fungi get in, and premature replacement of the timbers at inflationary costs is the result. Preservatives brushed or sprayed on cannot stop this type of decay, but Forest Products Laboratory researchers, working with the U.S. Naval Facilities Engineering Command, have found a new method of preservative application that works even against deep cracks in the wood. Fumigants such as Vapam and chloropicrin are applied to holes drilled in timbers and the holes are plugged. This method can eradicate decay fungi that conventional preservative treatments do not reach. Extending the service-life of structures and avoiding expensive repairs are two cost-effective results from the application of these research findings.

- Helping managers cope with the gypsy moth. We know how to kill gypsy moths with pesticides, but an all-out battle on the bug using toxic chemicals is environmentally unacceptable. Forest Service research in the Northeast has devised an integrated pest management decision process to help managers (1) determine the likelihood of gypsy moth infestation in a specific stand, based on the condition of trees there and the stand as a whole and (2) estimate which stands are likely to sustain the heaviest defoliation. Once managers have this information, they must decide if management goals for a particular site will be jeopardized by the amount of tree mortality predicted. If the answer is yes, the decision-support system helps managers select appropriate treatment actions compatible with achieving their goals and protecting the environment.

Forest Insect and Disease Research

This is a partial listing of the pests and problems addressed by the forest insect and disease research program.

<u>Pest or problem</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from 1988 Base</u>
		(Dollars in thousands)		
Gypsy moth	2,908	3,076	2,572	-504
Southern pine beetle	940	994	955	-39
Mountain pine beetle and other bark beetles	1,340	1,418	1,262	-156
Regeneration pests	1,835	1,941	1,875	-66
Spruce budworm	1,496	1,582	1,296	-286
Fusiform rust	1,427	1,510	1,371	-139
Atmospheric deposition	1,304	1,379	1,378	-1
Biotechnology	1,290	1,364	1,360	-4
Protection of wood	1,241	1,313	1,310	-3
Impact assessment	1,127	1,192	1,138	-54
Root diseases	916	969	1,033	+64
Mycorrhizae	898	950	776	-174
Douglas-fir tussock moth	260	275	277	+2

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Forest insect and disease research \$	22,743	21,028	-1,715
FTE	424	408	-16

A decrease of \$1,715,000 is proposed from the 1988 base.

This funding level permits continued emphasis in high-priority research programs, such as gypsy moth, biotechnology, pest impact assessment, bark beetles, root rot disease, and fusiform rust.

Planned actions include:

- Reducing extramural research and field testing of control technologies for managing gypsy moth in the East (Morgantown, WV).
- Reducing research on gypsy moth management technology in newly invaded western forests (Corvallis, OR).
- Reducing research on use of mycorrhizal fungi to enhance the establishment and growth of young stands of western conifers in support of FIR/COPE (Corvallis, OR).
- Reducing research on understanding the physiological conditions of host trees that affect resistance to damage by insect pests (East Lansing, MI).
- Forgoing accelerating research on cellulose degrading enzymes produced by brown-rot fungi and on methods of treating wood structures to protect them from decay (Madison, WI).
- Reducing research on guidelines to reduce losses caused by cone and seed diseases in southern pine seed orchards (Gainesville, FL).
- Reducing research on methods to evaluate and predict impacts caused by fusiform rust in southern pine plantations (Gulfport, MS).
- Reducing research on taxonomic relationships of the species complexes of decay fungi (Madison, WI).
- Reducing research on use of mycorrhizal fungi to improve survival and growth of hardwood and pine seedlings on adverse sites (Athens, GA).
- Reducing research on methodology to assess and predict impacts caused by insect and disease pests on western forests (Berkeley, CA).
- Forgoing accelerating research on effects of atmospheric deposition on western terrestrial ecosystems (Ft. Collins, CO).
- Forgoing accelerating research on guidelines for reducing damage to western conifers by root rot fungi (Moscow, ID).

**Object class
information**

Salaries and benefits	-564
Travel	-93
Transportation of things	-18
Rent, communications, and utilities	-234
Printing and reproduction	-27
Other services	-426
Supplies, materials, and equipment	-347
Grants, subsidies, and contributions	-6
Total	-1,715

Forest Inventory and Analysis

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Forest inventory and analysis..... \$	16,316	17,322	18,369	16,805	-1,564
FTE	355	360	360	345	-15

Objective To provide comprehensive, continuing information and analyses of forest land resources of the United States.

Program description Periodic inventories ascertain trends in extent, condition, and ownership of the Nation's forest resources. The data and analyses provide information about timber, wildlife habitat, forage production, and other resource characteristics needed for resource planning.

This research monitors the harvest and use of timber by the forest products industry. Research determines present and prospective national consumption of wood products by major end uses and relates these requirements to the national timber supply.

The forest industry, financial consultants, and State and Federal planners use these analyses of forest resource supply and demand to support planning, management, and investment decisions. Where forest conditions and timber supplies change rapidly, frequent reinventories of forest resources are necessary to retain useful inventory data.

Regional and national research projects are developing efficient techniques in forest inventory and data analysis to maintain a cost-effective program.

Examples of recent research accomplishments and projected trends in research follow:

- Continuing information on forest resources. Industrial development and resource management decisions require both recent and historical information on forest inventories. Recent data provide information on the current status of the forest resource, and previous inventories provide a means for assessing changes in the condition of the resource.

Where forest conditions and timber supplies change rapidly, timely data for timber inventories are essential if members of the forest industry, financial consultants, and State and Federal planners are to make informed decisions. Frequency of reinventory varies geographically and according to funding level. The expected nationwide average forest inventory cycle in FY 1987 is 11 years. The data and analyses in these inventories provide information about timber, wildlife habitat, forage production, and other resource characteristics needed for resource planning.

New statistical publications were issued in 1986 for California, Louisiana, Montana, New Hampshire, Vermont, Virginia, and Wisconsin. The new forest inventory in California provided timely information to the California Board of Forestry, which is assessing the question of whether woodland areas should be regulated in a manner similar to timberlands. Reports were also published for several special studies dealing with timber production.



Between FY 1982 and FY 1984, the nationwide average period between successive forest inventories slowed from 10 to 14 years. Funding in FY 1985 permitted restoration of the 10 year cycle. The nationwide average cycle in FY 1986, FY 1987, and the FY 1988 estimate is 11 years.

- A method for estimating operability and location of the timber resource. Foresters and loggers use the word "operability" to define the relative ease or difficulty of managing or harvesting timber because of physical conditions in the stand or on the site. If land managers or timber procurement personnel could rate timberland for operability, they could screen out marginal management/harvest opportunities and give high priority to the areas where dollars could be most wisely spent. Scientists at the North Central Experiment Station developed a method for evaluating operability using information routinely collected during Statewide forest inventories. With this method, users can determine the area of timberland and volume of timber by operability class and distance from wood-using centers in a State, all without spending money to collect new data.

- Forest inventory and analysis provides basis for analyzing timber supply policies in Idaho. Employment in the timber industries and payments to counties from national forests are important to the economy of Idaho and depend on the availability of timber supplies. In response to concerns about the projected timber harvest levels in the draft Idaho national forest plans and their relationship to total timber supplies available to the State's timber industries, Forest Service analysts related the proposed national forest harvest levels to potential timber supplies from other ownerships. The results identified the supply roles for private nonindustrial, State, and other public timberlands that would maintain the current contribution of the timber industries to the State's economy. The study has provided an improved basis for formulating management policies on public and private landownerships in Idaho.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Forest inventory and analysis research \$	18,369	16,805	-1,564
FTE	360	345	-15

A decrease of \$1,564,000 is proposed from the 1988 base.

This decrease allows forest inventory and analysis research to continue, but with the following actions:

- Reducing funding for the atmospheric deposition national vegetation survey (Durham, NC).

- Forgoing acceleration of research on the use of remote sensing for speeding up the nationwide forest inventory (Starkville, MS).

- Forgoing acceleration of research on more efficient sampling methods for the nationwide forest inventory (Ft. Collins, CO).

- Forgoing shortening the time lag between collection of forest inventory field data and reporting of final forest inventory data and analysis of results throughout the Nation.

**Object class
information**

Salaries and benefits	-436
Travel	-87
Rent, communications, and utilities	-113
Printing and reproduction	-24
Other services	-588
Supplies, materials, and equipment	-220
Grants, subsidies, and contributions	-96
Total	-1,564

Renewable Resources Economics Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Renewable resources economics research	\$ 4,370	4,370	4,638	4,648	+10
FTE	92	92	92	92	--

Objective To develop and apply methods for analyzing the responses of domestic and international forest-products markets to economic and institutional forces and for structuring economically efficient forest management activities.

Program description Research results contribute directly to national forest management decisions and to the design of public and private forestry programs. Individual landowners and forest products processing firms also use the research to manage their resources efficiently. The program has four primary research topics:

- Determine the response of domestic and international forest-products markets to economic, technological, and institutional forces. Research will help public and private policymakers develop strategies to increase the competitive advantage and economic contribution of the Nation's forest products industry.

- Identify economically efficient management practices that will improve timber productivity. Research will result in the design of timber management practices that are economically efficient and sufficiently flexible to respond to the uncertainties of changes in future technology.

- Determine actual timber management responses to economic and institutional factors. A more complete understanding of what affects timber management will help forest managers design programs that enhance the productive potential of the Nation's forest resource.

- Evaluate the economic efficiency of multiple use management actions on public and private lands.

Examples of recent accomplishments follow:

- Impacts of tax policies on forest management and timber investment. Taxes, their relationship to forest landownership, and their implications for forest-management decisionmaking have been matters of great interest in U.S. forestry circles for more than half a century. The impact of taxes is a dynamic process tax laws are constantly changing and new judicial interpretations of existing law are continually being rendered. The Forest Service responds to this changing tax environment through a comprehensive, continuing forestry tax research program centered at the Southern Station. With the recent passage of the most extensive overhaul of the Federal tax code in 50 years, Forest Service tax researchers are analyzing the management and investment responses of individual forest landowners and the forest industry to tax changes that affect forestry decisions.

- A framework for estimating wildland resource values. To complete comprehensive forest plans and prepare the planning analyses required by the Renewable Resources Planning Act (RPA) of 1974, the Forest Service needs to be able to accurately estimate the economic value of forest products--both tangibles, like timber, and intangibles, like recreation and aesthetics. Investigators at the Rocky Mountain Station have identified the important issues and provided new concepts and guidelines for assigning economic values to the varied products and uses. This information will be used in developing the 1989 RPA program.



Assigning economic values to tangibles from our wildlands, like the forage available on a specific parcel of rangeland, is relatively easy.

- Forest products industry in the economy of the South. How changes in the South's forest products industry in the 1970s affected employment, earnings, and productivity is the subject of a series of analyses by Forest Service and cooperating university economists. This industry is a significant and growing component of the economic base of most southern States. Furthermore, the industry is "working smart;" increases in productivity exceeded increases in payroll per worker between 1972 and 1977 for all 13 southern States. Five States--Alabama, Georgia, Louisiana, Oklahoma, and South Carolina--have forest products industries productivity above the national average.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Renewable resources			
economics research \$	4,638	4,648	+10
FTE	92	92	--

An increase of \$10,000 is proposed from the 1988 base.

This will permit a modest acceleration of research on the economics of international trade, especially on Canadian-U.S. trade in timber and wood products (Portland, OR).

**Object class
information**

Rent, communications, and utilities	+2
Other services	+5
Supplies, materials, and equipment	+3
Total	+10

Trees and Timber Management Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Trees and timber management research	\$ 21,502	23,302	24,748	23,681	-1,067
FTE	493	507	507	496	-11

Objective

To develop improved silvicultural alternatives and management guidelines needed to increase the productivity and multiple use benefits of forest lands, maximize the growth and quality of trees, and maintain land productivity.

Program description

The timber management research program is directed toward achieving higher productivity from forest lands by developing economically, biologically, and environmentally sound forest management practices.

Timber management research ensures that the information and technology needed to achieve full productivity are developed and promptly made available.

The program focuses on development of cost effective and reliable management strategies to improve forest growth, quality, and composition; on genetic improvement for superior tree growth, quality, and resistance to forest pests; and on more accurate predictions of the growth and yield of forest stands.

Basic research is directed at understanding the physical, biological, and genetic factors that control the development of individual trees and forest stands.

Examples of recent accomplishments follow:

- Silviculture and management of Appalachian hardwoods. For several decades, Forest Service researchers have been investigating the silviculture and management of Appalachian hardwoods. In 1986 the Northeastern Station and West Virginia University (in cooperation with the Allegheny Society of American Foresters) sponsored a workshop to summarize this information for field foresters and landowners. The proceedings, "Guidelines for Managing Immature Appalachian Hardwood Stands," include recommendations on how to manage sapling, pole, and small sawtimber stands with emphasis on how past history has affected present stand composition.

- Managing timber in the Rockies. Since no silvicultural system or tree-cutting method meets all resource needs, Rocky Mountain Station scientists have developed multiple guidelines to help managers convert old-growth or mixed-growth stands into managed stands. These guidelines consider stand conditions, species succession, windfall risk, and insect and disease susceptibility, and recommend cutting practices that help integrate timber production with increased water yield, improved wildlife habitat, enhanced opportunities for recreation, and scenic values. The reports describe the relative costs and advantages/disadvantages of many management techniques.

- Where to site seed orchards and how to deploy seed.

Researchers at the Southern Station have discovered that production of seed for reforestation can be greatly increased by locating pine seed orchards in warmer climates. Research is continuing on whether "after effects" of the seed-production climate persist after the resulting seedlings are outplanted in cooler locales. The great challenge for foresters is to deploy adequate levels of genetic diversity in commercial forests while at the same time seizing opportunities for greater yields through the use of genetically improved stock. Forest Service research indicates that by varying the timing and spatial patterns of seedlings from different genetic groups within a species, managers can achieve almost any pattern of genetic diversity in either pure or mixed stands.



This technician is harvesting an abundant cone crop from a grafted Virginia pine tree planted in southern Mississippi, 450 miles southwest of its origin. Seeds from trees such as this will later be planted at more northerly sites to achieve greater genetic diversity in either pure or mixed pine stands.

Decrease
for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Trees and timber management research ... \$	24,748	23,681	-1,067
FTE	507	496	-11

A decrease of \$1,067,000 is proposed from the 1988 base.

This funding level permits continued emphasis on high priority research programs, such as impacts of environmental stress on tree growth and development, forest biotechnology, and forest stand growth and yield prediction systems.

Planned actions include:

- Forgoing research on growth and yield prediction systems for mixed conifers in the Rocky Mountains and Southwest (Ft. Collins, CO).
- Forgoing establishing a new research work unit to develop growth and yield prediction systems for eastern hardwoods and northern conifers (Delaware, OH).
- Reducing research to develop silvicultural guidelines for aspen, birch, and conifer forests in the Lake States (Grand Rapids, MN).
- Forgoing research to develop information needed to regulate species composition and enhance oak regeneration in central hardwood forests (Columbia, MO, and Carbondale, IL).
- Forgoing acceleration of research to further develop and test biotechnology for improvement of forest trees for superior growth, quality, and resistance to forest pests (Rhinelander, WI).
- Forgoing initiation of new research to develop the guidelines needed for the management and protection of wetland ecosystems in the south Atlantic and east Gulf regions (Charleston, SC).

Object class
information

Salaries and benefits	-388
Travel	-52
Transportation of things	-10
Rent, communications, and utilities	-140
Printing and reproduction	-15
Other services	-280
Supplies, materials, and equipment	-142
Grants, subsidies, and contributions	-40
Total	-1,067

Watershed Management and Rehabilitation Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Watershed management and rehabilitation research ..\$	14,850	16,110	16,808	15,628	-1,180
FTE	239	246	246	234	-12

Objective To develop and test new, cost-effective technology and methods for rehabilitating lands disturbed by surface mining and for protecting, managing, and improving forest and rangeland watersheds.

Program description This research develops new knowledge to help planners and managers meet long-term water quality and flow needs, rehabilitate surface-mined lands, and determine the relationship of water quality and flow with alternative land uses.

Forests and rangelands in the contiguous 48 States yield about 1.3 billion acre-feet of water annually. Water flow and quality are improved on forest and rangelands primarily through managing other resources; thus, knowledge from related forest and rangeland research activities helps ensure that managed lands produce consistent flows of acceptable quality water.

To support surface mining activities, research is done to alleviate the impacts of surface mining on associated natural resource values and restore mined areas promptly to full productivity.

The program:

- Develops methods to maintain or improve water quality and yield from forests and rangelands.
- Provides information to maintain soil stability and to stabilize eroded lands.
- Determines ways to conserve snow moisture and to improve vegetative growth and surface water supplies.
- Evaluates the cumulative effects of land management activities on water quality, yield, and stream channel stability.
- Determines the effects of chemicals, including atmospheric deposition, on forests and rangelands.
- Develops new technology to plan mining operations that protect surface and underground water supplies and restore long-term productivity of mined lands.

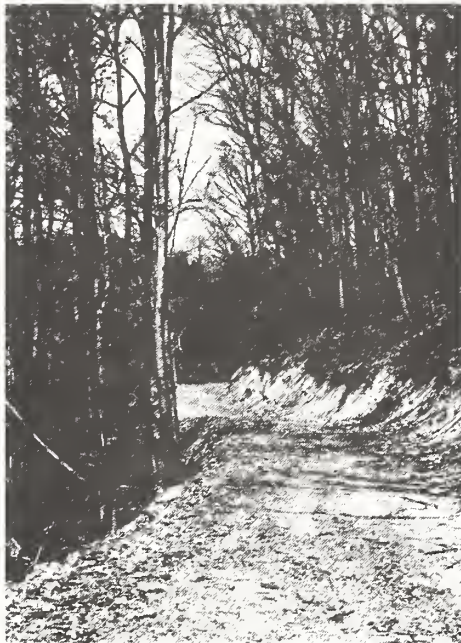
Examples of recent accomplishments follow:

- Can low-cost, low-maintenance forest road design protect water resources? Though access roads are an essential feature of a well-managed forest, they can degrade the environment if poorly designed and carelessly built. Recently, Congress directed the Forest Service to reduce road costs. Recent research indicates that low-cost, low-maintenance roads are consistent with protection of water resources.

In Idaho, scientists found that road design has little effect on erosion; what matters more is the stage of construction when a storm occurs. Many problems have occurred during culvert installations. One technique to reduce stream sedimentation during culvert construction is to install a coffer dam above a culvert installation site and pump the stream around the site.

In West Virginia, scientists studied the depth of surfacing materials on minimum standard roads and found that soil losses from these roads, even without gravel, are not greater than those reported from higher standard roads elsewhere. Using at least 3 inches of clean limestone gravel for surfacing decreases soil losses and improves utility.

In North Carolina, scientists found they could achieve better control of sediment deposition by trapping sediments along roadsides with filter strips narrower than those previously in use. These thinner strips are particularly helpful when used with outsloped roads, broad-base dips, obstructions like brush barriers to disperse runoff, and grass-covered road fills.



Forest roads do not always have to be expensive to prevent serious sediment problems in streams. Something as simple as a dip in the road can substitute for much more costly design features.

- Converting chaparral shrubland to grassland increases stream flow. Shrubs use more water than grasses. Scientists at the Rocky Mountain Station in Tempe, AZ, have been studying the feasibility of converting chaparral communities to grasslands. The goal is to leave more water for streamflow and still protect the soil from erosion. A recent study showed that streamflow could be increased 72 percent when just over half of the area was converted to grass. A related

study examined the contribution of increased streamflow to flood flows on two small chaparral watersheds. Although mean stormflow volume tripled in a study plot that was converted to grass and mean peak flow rate increased 77 percent, the scientists concluded that large chaparral conversions in the Phoenix area would increase major flood flows by less than 4 percent.

- Reclaiming surface mine spoils. To revegetate surface-mined lands in Appalachia, Forest Service research has found forest topsoil is superior for mine land reclamation than a commonly recommended ground-cover mix or a combination of topsoil and seeds. "Seed banks" result when seeds that occur naturally accumulate for a number of years in the topsoil. Scientists believe that the use of topsoil seed banks in Appalachia can greatly enhance the diversity of plant communities and accelerate the return of disturbed lands to more stable conditions.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Watershed management and rehabilitation research	\$ 16,808	15,628	-1,180
FTE	246	234	-12

A decrease of \$1,180,000 is proposed from the 1988 base.

This funding level permits continued emphasis on high priority research programs, such as slope stability, atmospheric deposition, mineland reclamation, erosion prediction, and water quality.

Specific actions include:

- Terminating research work on municipal watersheds and atmospheric deposition at University Park, PA.
- Terminating atmospheric deposition research on watershed processes that affect the capacity of watersheds to buffer against acid precipitation in the Southeast (Franklin, NC).
- Reducing atmospheric deposition research on watershed processes that affect the capacity of watersheds to buffer against acid precipitation in the Pacific Southwest (Riverside, CA) and Lake States (Grand Rapids, MN).
- Reducing research on methods of reclaiming mined lands (Rapid City, SD; Logan, UT; and Provo, UT).
- Reducing research on the impacts of timber harvesting and road construction on water quality in the South (Oxford, MS) and Intermountain West (Boise, ID).
- Reducing research on the cumulative effects of forest management activities on watershed characteristics in the Pacific Southwest (Arcata, CA).
- Reducing research on techniques to prevent mass soil movement on steep slopes in the Pacific Northwest (Corvallis, OR).

- Reducing research on baseline water quality in Puerto Rican forested watersheds (Rio Piedras, PR).

- Forgoing acceleration of research on erosion processes and erosion prediction modeling in the Southwest (Tempe, AZ).

**Object class
information**

Salaries and benefits	-409
Travel	-24
Transportation of things	-9
Rent, communications, and utilities	-40
Other services	-327
Supplies, materials, and equipment	-77
Grants, subsidies, and contributions	-294
Total	-1,180

Wildlife, Range, and Fish Habitat Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Wildlife, range, and fish habitat research	\$ 9,072	11,491	12,143	11,459	-684
FTE	205	229	229	220	-9

Objective To develop knowledge and technology for maintaining or improving wildlife and fish habitat; improving range condition, soil stability, and vegetative cover; and integrating wildlife, fish, and livestock with other forest and rangeland uses.

Program description To ensure diverse, well-distributed habitats and to protect and improve forage and related rangeland resources, managers must understand the complex relationships among plant growth and response of vegetation to defoliation, other land uses, habitat quality, and wildlife and fish populations.

Major research areas include anadromous and other cold-water fish; integrated management of riparian ecosystems; old-growth forest wildlife (including the spotted owl); threatened, endangered, and sensitive species of plants and animals; integrated multiple use range management; improved varieties of range plants; and integrated management of livestock, wildlife, and fish with other forest and range resource uses and values.

The program:

- Provides information to meet legal and regulatory requirements.
- Determines habitat requirements of individual species and develops management guides for them, including threatened, endangered, and sensitive species of plants and animals, game species, and anadromous and other cold-water fish.
- Develops new concepts and methods for cost-effective monitoring of wildlife populations.
- Develops knowledge of ecologic principles that apply to planning and management of wildlife, range, and fish habitat.
- Examines forage, habitat, livestock, wildlife, and fish responses to forest and rangeland succession and land management alternatives.
- Develops effective techniques for the use of livestock in managing of undesirable vegetation and noxious weeds.
- Develops new plant materials and techniques to stabilize eroding soils for enhancing forage production and wildlife and fish habitat.
- Develops new techniques to integrate multiple use of forest and rangeland resources.

Cooperative research with the University of Idaho has revealed that juvenile spring chinook prefer to live in undercut stream banks in small streams, and managers can simulate this habitat with artificial shelters or enhancement structures to maximize chinook survival.



Research has indicated that chinook salmon prefer to live in undercut streambanks. Here, researchers have placed artificial shelters in a stream to simulate undercut banks where none occur naturally.

- Wildlife habitats in managed rangelands. Forest Service rangeland research seeks to define the habitat requirements of rangeland wildlife and fish species, clarify the relationship between grazing and fish and wildlife, and develop and test new plants and methods for rehabilitating and managing rangeland habitats. In 1986 the Forest Service completed a new book, "Wildlife Habitats in Managed Rangelands," in cooperation with the Bureau of Land Management. The purposes of this book were to (1) develop a common understanding of wildlife habitats of managed rangelands, (2) provide a system for predicting the effects of range management practices on wildlife, and (3) show how the system can be applied to a specific area.

Examples of recent accomplishments follow:

- Grazing guidelines for high sierra mountain meadows. Managers of mountain meadows need to find balanced ways to concurrently meet the needs of livestock, wildlife, and recreation seekers while maintaining multiple resource productivity. Forest Service scientists have found that mountain meadows need watershed and slope relationships which provide for an accumulation of fine-textured materials and geologic strata that promote a constant supply of water. They also found that herbage production decreases at high elevations and moisture extremes, and peaks when vegetation is at or near climax. This research has led to guidelines for grazing in mountain meadows.

- Wildlife in the managed forest. Much of the Forest Service wildlife research program is directed toward discovering the habitat requirements of the 3,000 species of vertebrates that live in the national forests and developing models to predict changes in distribution and abundance of species with human-caused changes in habitat. Scientists also study what wildlife communities live in specific habitats and how these communities change over time with forest harvesting, stand treatment, and stand development.

Research completed in 1986 included these projects:

- Habitat capability models for the ovenbird and the wood thrush have been developed and tested in Missouri. These models predict species response to forest management activities.

- To help researchers determine if census timing is important in taking bird counts, we studied various monitoring techniques and found no hourly variation in counts during the first 5 hours of the morning.

- To keep the populations of gray and fox squirrels in areas near clearcuts, foresters need to leave uncut streamside strips at least 160 feet wide and connected to an adjacent forest.

- Northeastern Station scientists have developed a classification system for foraging guilds for North American birds based on major food, feeding substrate, and foraging technique. Managers need such a system to adequately consider multiple species simultaneously when evaluating impacts of proposed habitat alteration.

- Managers seeking to increase populations of elk will find helpful the Intermountain Station's new system for estimating elk hiding cover from standard information on timber stands.

- Book on New England's wildlife. New England's public and private landowners will benefit from publication of "New England Wildlife: Habitat, Natural History, and Distribution," a new book that presents life history accounts, range maps, and key habitat requirements for 335 species of local wildlife.

- Stream habitat. Before stream habitat can be adjusted to favor popular fish species, like coho and chinook salmon and steelhead trout, resource managers need to know how natural obstructions in stream channels affect the survival of these fish. Research at the Pacific Southwest Station found that large obstructions stabilize the channel and create pools by water-scouring action. Larger fish live in these pools during the summer. Spawning is favored by the deposition of bars both upstream and downstream from obstructions. This research also provided optimal designs for artificial obstructions, so fisheries managers can modify the natural habitat to favor particular species.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Wildlife, range, and fish habitat research \$	12,143	11,459	-684
FTE	229	220	-9

A decrease of \$684,000 is proposed from the 1988 base.

This funding level permits continued emphasis on high priority research programs, such as threatened and endangered species, intensive forest management and wildlife interactions, anadromous fish, and grazing effects on wildlife and fish.

The following actions are anticipated:

- Reducing research on pinyon-juniper management (Reno, NV).
- Reducing research on relationships between Sitka deer and old growth in southeastern Alaska (Juneau, AK).
- Reducing research on the northern spotted owl (Olympia, WA).
- Reducing research on Douglas-fir old-growth/wildlife habitat relationships (Olympia, WA; Arcata, CA).
- Reducing research on wildlife habitat in southern pine forests (Nacogdoches, TX).
- Reducing research on threatened and endangered wildlife, including the grizzly bear (Missoula, MT) and the Puerto Rican parrot (Rio Piedras, PR).
- Forgoing implementation of cold-water fish habitat research program in Lake States (St. Paul, MN).

**Object class
information**

Salaries and benefits	-306
Travel	-43
Transportation of things	-11
Rent, communications, and utilities	-54
Other services	-144
Supplies, materials, and equipment	-102
Grants, subsidies, and contributions	-24
Total	-684

Forest Recreation Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Forest recreation research . \$	2,049	2,377	2,498	2,427	-71
FTE	40	42	42	41	-1

Objective To give land managers the technology to provide more and higher quality outdoor recreation experiences. To develop knowledge to manage vegetation in and near urban areas for optimum economic, social, and environmental benefits.

Program description Recreation research provides a scientific basis for assessing the outdoor recreation and wilderness resources and making decisions on investments in forest recreation. It also provides methods for improving outdoor recreation services and develops technology to protect resources for future use. Continuing research addresses problems in protecting, managing, and allocating scarce recreation resources.

Urban forests and associated open land take up 50 percent of the space in the typical American city. These valuable resources produce many environmental, economic, and social benefits. Urban forestry research develops new technology to maximize the many benefits that urban forests produce. Researchers examine problems of forests in and near urban environments from a multiple use resource system perspective. All forest-related natural resources are considered, not just "street trees." Problems of developing, maintaining, and evaluating the forest resources are addressed.

The program provides the means to:

- Determine factors that underlie recreation supply, demand, preferences, and benefits.
- Develop capabilities to provide high-quality recreation experiences and facilities, while preserving natural environments.
- Determine methods to improve user services, enhance educational opportunities, and reduce vandalism and conflict among recreation users.
- Value benefits that urban forests can produce.
- Manage urban forest resources to improve urban environments.
- Select, establish, maintain, and protect urban forest vegetation.

Examples of recent research include:

- Managing bicycle trails in the urban forest. Bicycling in urban forest areas is so popular that there is a strong demand for additional trails. The Forest Service needs to know what traits cyclists find most appealing and to change existing trails for the better or to build new ones. The North Central Station, working with Southern Illinois University, developed a survey to identify which attributes are important to riders in greater Chicago's forest preserves. A model was developed to predict user satisfaction with a trail, using characteristics such as its surface, length, distance from the cyclist's home, terrain, and variety in nearby landscape. Experimental results suggest that trail surface and proximity to home are particularly important to bicyclists.



A survey of suburban Chicago bicyclists revealed that the quality of trail surface and distance from home are two characteristics particularly important to cyclists. This information has been put into a computer model that enables planners to predict user satisfaction with proposed changes to existing trails or construction of new ones before undertaking the building phase.

- Saving energy use through proper tree selection and placement. Researchers at the Northeast and Pacific Southwest Stations studying optimal planting locations for residential shade trees have developed two computer programs--SOLPLOT and SPS--to help homeowners select tree placements to control sunlight and shade on windows in order to reduce energy costs. The effectiveness of trees to provide shade in summer and permit sunlight penetration through the crown in winter was found to vary by species, by the tree's shape and density, and by the length of in-leaf season. A house surrounded by optimally placed trees uses up to 20 percent less energy per year than the same house placed in the open.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Forest recreation			
research \$	2,498	2,427	-71
FTE	42	41	-1

A decrease of \$71,000 is proposed from the 1988 base.

This funding level permits continued emphasis on high priority research programs such as outdoor recreation and urban forestry.

Specific actions include:

- Reducing wilderness recreation research (Missoula, MT).
- Reducing urban forestry research (Chicago, IL).

**Object class
information**

Salaries and benefits	-38
Travel	-4
Rent, communications, and utilities	-6
Other services	-12
Supplies, materials, and equipment	-11
Total	-71

Forest Products and Harvesting Research

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Forest products and harvesting research	\$ 17,560	18,364	19,450	18,200	-1,250
FTE	378	382	382	370	-12

Objective

To provide technology to harvest and utilize timber more efficiently. To develop timber harvesting and transporting systems that are economically and environmentally acceptable. To expand the utility and improve the performance of wood products. To reduce waste, costs, and energy consumption in wood processing. To facilitate forest management and environmental protection through improved harvesting and use of timber resources.

Program description

Research focuses on improving the recovery of high-value products from each log and increasing the utilization of low-value trees, logging residues, dead trees, whole trees, and mill wastes.

Utilization research develops technology for producing improved lumber, structural particleboard, panels, pulp, paper, chemicals, and fuels from wood. It develops mechanical, chemical, and biological wood-processing and preservative systems that will reduce waste, pollution, energy consumption, and losses from wood-destroying organisms. Utilization research also develops economical and energy-efficient wood-based and wood-fiber structures and structural materials. Basic and applied research are combined to continue to increase the level of product recovery from each harvested tree.

Research emphasizes improving systems for harvesting forest biomass efficiently, economically, and in environmentally acceptable ways. In the Pacific Northwest and Alaska Regions, the focus is on improved systems to harvest trees economically and to recover logging residues from steep terrain. In the Intermountain West, research addresses the problems of forest road building on unstable slopes and harvesting operations in overstocked, small-diameter timber stands. In the East, the focus is on new methods to recover and use low-grade hardwood trees and logging residues, harvesting small trees and plantation-grown trees, and integrating harvesting systems with other forest-management practices.

Some examples of recent accomplishments follow:

- Composite panels from low-value trees and residues. Good forest management dictates the removal of small and cull trees. To achieve this end, there must be a profitable market for such material. Forest residues such as limbs and branches of merchantable trees left in the forest and mill wastes like sawdust, planer shavings, slabs, and edgings are often wasted fiber or become serious disposal problems. Forest Service research has shown that such material can be turned into valuable products when used to produce flakeboard, particleboard, and oriented strand board. These techniques have been readily accepted by existing mills, and new composite panel mills have been built in New England, the East, the South, and the Rocky Mountain areas.

- Rigid-when-wet corrugated fiberboard. Because the strength of paper and paperboard diminishes rapidly when exposed to high humidity and moisture, researchers at the Forest Products Laboratory have been working on a new process--SOFORM--to solve this problem. SOFORM is a chemical treatment process that imparts wet-stiffness (stiffness after long soaking) characteristics to paper and paperboard. The process can improve paper's dimensional stability by about 80 percent and maintain a wet-stiffness almost equivalent to its dry-stiffness. Construction potentials for SOFORM-treated fiberboard materials could include emergency shelters for disaster victims and wall and ceiling panels.

- Dimensional stability of wood panel products improved by chemical modification. The lack of dimensional stability in wood due to its swelling and shrinking from moisture exposure is a serious problem in furniture- and cabinet-making because movement during moisture gain or loss can distort the finished product. Researchers have discovered that this movement can be reduced considerably by treating wood with acetic anhydride, which precludes the cell-wall polymers in the wood from bonding with water molecules. This treatment is expensive and does not always work completely. Forest Products Laboratory chemists have discovered that the problems with the acetic anhydride treatment can be overcome by using a special dip procedure followed by a period of heating. This new technique treats small flakes, particles, or fibers and results in their complete acetylation, making the process more cost effective. The treated material can then be formed into panel or molded products with greatly improved water resistance and dimensional stability and little color change or diminution of strength properties, compared to untreated wood.



At the Forest Products Laboratory, Forest Service scientists have found that they can significantly increase the dimensional stability of wood for furniture and millwork applications by chemically modifying its cell-wall polymers at the microscopic level. The process involved has very little effect on the strength properties of the resulting wood material and causes almost no color change in the finished product.

- New guide to finishing wood exteriors. Results of more than 60 years of continuing research on exterior wood finishing are brought together in "Finishing Wood Exteriors: Selection, Application, and Maintenance." This handbook is most useful for do-it-yourselfers, but it also serves as a reference for professional builders, architects, and wood finishers. It discusses basic characteristics of wood and wood-based products, types of exterior wood finishes and how to apply them, weathering properties of wood, and how to diagnose and correct finish failures on wood in service.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Forest products and harvesting research ... \$	19,450	18,200	-1,250
FTE	382	370	-12

A decrease of \$1,250,000 is proposed from the 1988 base.

This funding level permits continued emphasis in high priority research areas, such as bioprocessing for pulp, chemicals and adhesives for wood, integration of harvesting and forest management practices, and structural products from wood fiber and from chemically modified wood materials.

The following actions are anticipated:

- Reducing research on computer modeling of fire behavior in wood structures to increase safety (Madison, WI).

- Forgoing research on structural properties and products from juvenile wood (Madison, WI).

- Reducing research on innovative improvements in drying technology and other processing operations in hardwood products (Madison, WI).

- Forgoing acceleration of research on the development of structural products from wood fiber and from chemically modified wood materials (Madison, WI).

- Forgoing research to develop better engineering systems for thinning and other silvicultural operations in northern forests (Houghton, MI).

- Reducing research on the estimation of product value and recovery potential of second-growth western species used for construction purposes (Portland, OR).

- Forgoing acceleration of research to enable the characterization and production of adhesives and other chemicals from pine bark (Pineville, LA).

- Reducing research on improved logging systems for thinning southern pine stands (Auburn, AL).

- Forgoing research on improved manufacturing technologies for eastern hardwoods (Princeton, WV).

- Forgoing acceleration of research on slope stability and sedimentation (Moscow, ID).

Object class information	Salaries and benefits	-422
	Travel	-69
	Transportation of things	-10
	Rent, communications, and utilities	-191
	Other services	-213
	Supplies, materials, and equipment	-338
	Grants, subsidies, and contributions	-7
	Total	-1,250

Special Projects, Competitive Grants

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Special projects, competitive grants	\$ 6,506	6,000	6,000	--	-6,000
FTE	--	--	--	--	--

Objective To develop fundamental knowledge and understanding of wood properties and structures, biological mechanisms of forest organisms, and relationships within forest ecosystems.

Program description The FY 1986 competitive research grants program in forestry was \$6,505,960, with funding to be directed at basic research in two areas:

- Improved harvesting, processing, and utilization of timber resources, with emphasis on chemical, mechanical, and engineering properties of wood and wood materials.

- Fundamental forest biology, including biotechnology.

This competitive research grants program in forestry is administered by the USDA Competitive Research Grants Office in the Cooperative State Research office--the same office administering the agricultural competitive grants program. Funds are allocated to that office.

The procedures for awarding grants are based on a competitive evaluation process used by the National Science Foundation. Requests for proposals appear in the Federal Register after clearance by the USDA Office of the General Counsel and the Office of Management and Budget.

Scientists on leave from their institutions serve as program managers or evaluation panel members. Federal employees serve as associate program managers performing essential administrative tasks.

All qualified scientists in the United States are eligible for grants, including Federal scientists.

A total of 428 proposals, requesting a total of \$81 million, were received in competition for the \$6.2 million available for grants in FY 1986. Of these, 63 proposals were awarded grants. The average grant was approximately \$98,000, and covered a 3-year period. Grants were awarded as shown on the next page.

DISTRIBUTION OF FY 1986 COMPETITIVE GRANTS

<u>Program Area</u>	<u>Number of Grants</u>	<u>Amount</u>
IMPROVED UTILIZATION OF WOOD & WOOD FIBER		
<u>Wood Chemistry and Biochemistry:</u>		
Phanerochaete enzymology	2	\$ 238,227
Lignin chemistry	2	275,000
Adhesives	1	135,000
Bioconversion technologies	1	86,000
Wood hydrolysis	1	90,000
Degradation/protection	2	160,000
Grafting of polymers	1	160,000
Subtotal	10	\$1,144,227
<u>Physical/Mechanical Properties of Wood and Basic Processing Technology:</u>		
Wood quality	1	\$ 71,598
Processing technology	2	175,000
Mechanical/physical behavior	6	446,000
Composite materials	4	404,000
Harvesting	2	237,000
Conferences	1	11,000
Subtotal	16	\$1,344,598
<u>Structural Wood Engineering:</u>		
Fundamental wood physics	2	\$ 189,000
Structural analysis	4	406,000
Subtotal	6	595,000
Total, Utilization of Wood	32	\$3,083,825
FOREST BIOLOGY (Including Biotechnology)		
<u>Genetic Structure and Function:</u>		
Biotechnology	3	\$ 335,100
Genetics	3	282,000
Subtotal	6	\$ 617,100
<u>Mechanisms of Interactions in Forest Systems:</u>		
Entomology	4	\$ 345,000
Mycorrhizae	3	334,825
Pathology	4	332,000
Physiology	8	839,000
Silviculture/ecology	6	615,900
Subtotal	25	\$2,466,725
Total, Forest Biology	31	\$3,083,825
GRANTS TOTAL	63	\$6,167,650
U.S.D.A. Office of Competitive Grants, Administrative expenses		\$ 260,238
Small business innovation research program support		78,072
		<u>\$ 338,310</u>
FY 1986 adjusted appropriation total		<u>\$6,505,960</u>

DISTRIBUTION OF RESEARCH FUNDS, FY 1986-1988 1/

(by Station and Washington Office)

<u>Stations</u>	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date (Dollars in thousands)</u>	<u>1988 Base</u>	<u>1988 Estimate</u>
Pacific Northwest	\$13,891	\$15,833	\$16,741	\$16,067
Pacific Southwest	8,757	10,434	10,996	10,593
Intermountain	9,672	10,742	11,356	11,521
Rocky Mountain	9,075	9,434	9,907	9,520
North Central	9,324	9,876	10,496	9,509
Northeastern	14,562	17,566	18,560	16,865
Southeastern	12,446	14,430	15,350	13,956
Southern	12,241	12,758	13,584	12,893
Forest Products Laboratory	11,886	12,674	13,257	12,634
Washington Office <u>2/</u>	7,939	8,135	8,654	8,654
Acid Deposition Program <u>3/</u>	3,828	1,000	1,000	--
Subtotal, Forest Service	113,621	122,882	129,901	122,212
Competitive Grants <u>4/</u>	6,506	6,000	6,000	--
TOTAL	\$120,127	\$128,882	\$135,901	\$122,212

1/ General administration costs at research locations are not charged to the Research appropriation, but are paid for out of the general administration line item in the National Forest System appropriation.

2/ The Washington Office Research appropriation includes costs for research administrators and staff scientists who are responsible for national research program coordination and expert scientific advice through review and analysis of the experiment station programs.

3/ These funds are distributed to the Stations once the plans for the national atmospheric deposition research program are complete.

4/ Competitive Grants funds are transferred to the Cooperative State Research Service for administration of the Forestry Competitive Grants program.

Distribution of Obligations by Function

<u>Function</u>	FY 1986 <u>Actual</u>	FY 1987 <u>Estimate</u>	FY 1988 <u>Estimate</u>
	(Dollars in thousands)		
Salaries/personnel compensation	\$ 68,503	\$ 73,436	\$ 68,648
Personnel benefits	8,727	9,164	8,745
Benefits for former personnel	187	196	187
Travel and transportation of persons	2,878	3,770	3,578
Transportation of things	465	609	578
Standard level user charges	1,625	1,507	1,760
Communications and utilities	3,539	4,636	4,400
Building rentals	90	118	112
Printing and reproduction	637	834	792
Other contractual services	10,846	14,209	13,488
Supplies and materials	2,823	3,698	3,510
Equipment	4,548	5,959	5,656
Lands and structures	147	193	182
Grants, subsidies, and contributions	8,252	7,370	10,516
Insurance claims and indemnities	8	10	9
Refunds	<u>42</u>	<u>54</u>	<u>51</u>
TOTAL	\$113,317	\$125,763 <u>1/</u>	\$122,212

1/ Includes \$1,381,000 from prior year unobligated balances in Land Acquisition to cover pay and FERS.

FOREST RESEARCH

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1104-0-1-302				
Program by activities:				
Direct program:				
	1. Fire and atmospheric sciences research	8,306	8,237	8,336
	2. Forest insect and disease research.....	20,136	22,009	21,028
	3. Forest inventory and analysis.....	15,422	17,732	16,805
	4. Renewable resources economics research.....	4,329	4,477	4,648
	5. Timber management research....	22,040	23,845	23,681
	6. Watershed management and rehabilitation research....	14,221	16,488	15,628
	7. Wildlife, range, and fish habitat research.....	9,292	11,759	11,459
	8. Forest recreation research....	2,017	2,427	2,427
	9. Forest products and harvesting research.....	17,554	18,789	18,200
	Total direct program	113,317	125,763	122,212
	Reimbursable program	9,057	11,300	8,300
10.00	Total obligations	122,374	137,063	130,512
Financing:				
Offsetting collections from:				
11.00	Federal funds	-8,045	-10,035	-7,371
14.00	Non-federal sources	-1,012	-1,265	-929
22.40	Unobligated balance transferred, net	---	-1,381	---
25.00	Unobligated balance lapsing	304	---	---
39.00	Budget authority	113,621	124,382	122,212
Budget authority:				
40.00	Appropriation	120,127	128,882	122,212
41.00	Transfer to other accounts	-6,506	-4,500	---
43.00	Appropriation (adjusted).....	113,621	124,382	122,212
Relation of obligations to outlays:				
71.00	Obligations incurred, net	113,317	125,763	122,212
72.40	Obligated balance, start of year ...	21,348	22,198	24,340
74.40	Obligated balance, end of year	-22,198	-24,340	-23,995
90.00	Outlays	112,468	123,621	122,557

FOREST RESEARCH

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1104-0-1-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	61,862	66,328	61,995
11.3	Other than full-time permanent	6,389	6,851	6,405
11.5	Other personnel compensation	235	246	237
11.8	Special personal service payments	17	11	11
11.9	Total personnel compensation	68,503	73,436	68,648
Personnel benefits:				
12.1	Civilian	8,727	9,164	8,745
13.0	Benefits for former personnel	187	196	187
21.0	Travel and transportation of persons ...	2,878	3,770	3,578
22.0	Transportation of things	465	609	578
23.1	Standard level user charges	1,625	1,507	1,760
23.2	Rental payments to others	90	118	112
23.3	Communications, utilities, and miscella- neous charges	3,539	4,636	4,400
24.0	Printing and reproduction	637	834	792
25.0	Other services	10,846	14,209	13,488
26.0	Supplies and materials	2,823	3,698	3,510
31.0	Equipment	4,548	5,959	5,656
32.0	Lands and structures	147	193	182
41.0	Grants, subsidies, and contributions ...	8,252	7,370	10,516
42.0	Insurance claims and indemnities	8	10	9
44.0	Refunds	42	54	51
99.0	Subtotal direct obligations	113,317	125,763	122,212
99.0	Reimbursable obligations	9,057	11,300	8,300
99.9	Total obligations	122,374	137,063	130,512

PERSONNEL SUMMARY

Direct:

Total number of full-time permanent positions	1,995	2,037	1,985
Total compensable workyears:			
Full-time equivalent employment	2,288	2,350	2,276
Full-time equivalent of overtime and holiday hours	8	8	8
Average ES salary	\$ 67,823	\$ 69,807	\$ 69,807
Average GS grade	11.87	11.87	11.87
Average GS salary	\$ 33,166	\$ 33,912	\$ 34,161
Average salary of ungraded positions	\$ 22,852	\$ 23,366	\$ 23,538

Reimbursable:

Total number of full-time permanent positions	39	40	39
Total compensable workyears:			
Full-time equivalent employment	92	95	91
Full-time equivalent of overtime and holiday hours	2	2	2
Average GS grade	12.89	12.89	12.89
Average GS salary	\$ 39,076	\$ 39,955	\$ 40,248

State and Private Forestry

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1/ 1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from 1987</u>	<u>Inc.(+) or Dec.(-) from Base</u>
	<u>(Dollars in thousands)</u>					
Forest pest management ... \$	28,329	31,021	32,306	27,856	-3,165	-4,450
FTE	383	395	395	395	--	--
Fire protection ... \$	13,032	13,600	13,785	4,778	-8,822	-9,007
FTE	55	55	55	55	--	--
Forest management and utilization .. \$	9,518	9,925	10,194	--	-9,925	-10,194
FTE	87	89	89	--	-89	-89
Special projects \$	4,442	4,400	4,422	2,800	-1,600	-1,622
FTE	7	7	7	--	-7	-7
Total \$	55,321	58,946 <u>2/</u>	60,707	35,434	-23,512	-25,273
FTE	532	546	546	450	-96	-96

1/ The amounts shown do not reflect the proposed reprogramming of \$603,000 from Lake Tahoe to cover pay and FERS costs in FY 1987.

2/ This amount does not reflect the proposed transfer of \$797,000 from Lake Tahoe to the National Forest System appropriation to cover pay and FERS costs in FY 1987.

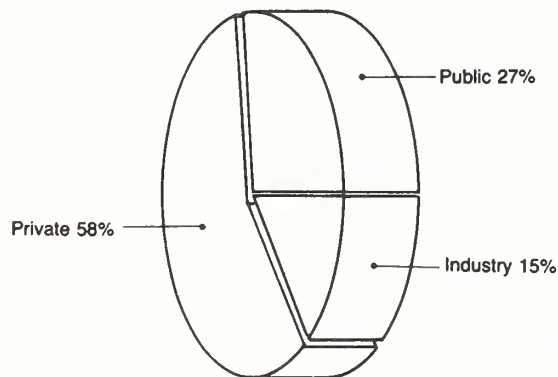
Authorities

- P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944 (7 U.S.C. 2250). Section 703.
Erect, alter, and repair buildings necessary to carry out authorized work.
- P.L. 89-106, The Special Research Grants Act of August 4, 1965 (7 U.S.C. 2250a). Section 1.
Erect and lease buildings, structures, and land from non-Federal sources.
Such sums as appropriated, no expiration date specified.
- P.L. 95-313, Cooperative Forestry Assistance Act of 1978, July 1, 1978 (16 U.S.C. 2101-2110). Sections 3 and 5-8.
Cooperation in forest management and urban and community forestry; insect and disease control; rural fire control; and management and planning assistance.
(05-96) 12-1100 302 SAGR HAGR
Such sums as appropriated; no expiration date specified.
- P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act, August 17, 1974, as amended (16 U.S.C. 1601). Sections 2-5.
Forest resources planning and evaluation.
(05-96) 12-1100 302 SAGR HAGR
Such sums as appropriated; no expiration date specified.
- P.L. 95-192, Soil and Water Resources Conservation Act of 1977. (91 Stat. 1411), Cooperation in soil and water resource appraisal and conservation.
Such sums as appropriated; no expiration date specified.
- P.L. 95-495, Act of October 21, 1978 (92 Stat. 1649), Section 6(d)(2).
Establishes Boundary Waters Canoe Area Wilderness.
\$3,000,000 additional for grants to the State of Minnesota for resource management activities.
Authority for this grant expires at the end of FY 1990.
- P.L. 96-586, Act of December 23, 1980. Sections 2(g) and 3.
Land acquisitions in the Lake Tahoe Basin.
Payments to localities for water pollution control and land management.
(05-96) 12-1105 302 SENR HIIA
Authorization is 15 percent of the Land and Water Conservation Fund appropriation for Lake Tahoe Basin land acquisitions each year. Expires when all Clark County, Nevada, land specified in the Act is sold by the U.S. Department of Interior, Bureau of Land Management.
- P.L. 99-198, Food Security Act of 1985. (99 Stat. 1354, Title XII, Section 1231-1236) Conservation acreage reserve.
Such sums as may be necessary; no expiration date specified.

**Appropriation
Summary
Statement**

Fifty-eight percent of the Nation's commercial forest land is in nonindustrial private ownership. This land is important in meeting the Nation's needs for natural resources, especially timber. About 45 percent of these lands offer economic opportunities for intensified management. The cooperative State and private forestry programs help landowners manage their lands to meet the Nation's needs.

**Ownership
Commercial Forest Land**



Functions of State and Private Forestry Programs

Forest Service State and private forestry programs involve high-priority Federal activities to provide national leadership and assistance in nonindustrial private forest management, protection, and use.

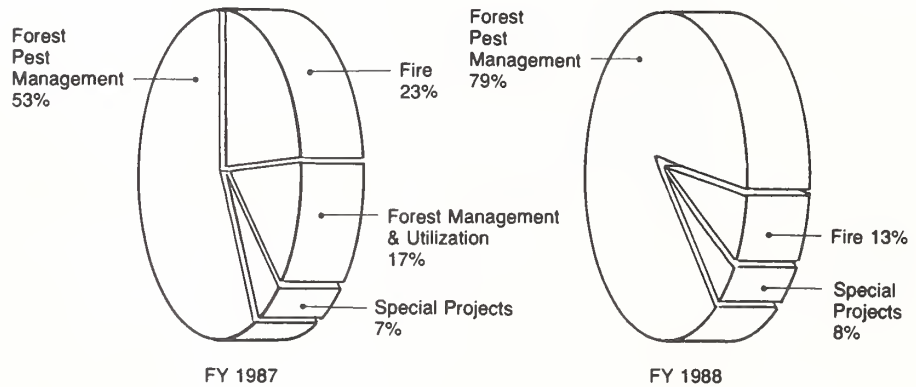
Through these programs, Federal assistance is provided to:

- help protect non-Federal wildlands from fire, and from damaging insects and diseases, to reduce losses of timber, tree growth, and quality of wood products.
- help landowners, operators, wood processors, and State and local agencies increase timber growth and harvests; protect soil and water; and improve efficiency and reduce waste in forest products harvesting.
- transfer the results of forestry research to forest owners and managers to improve forest resource protection, management, and utilization for all lands and users.
- help manage rural and urban forest resources for multiple uses.

These functions are carried out in the program areas of forest pest management, fire protection, forest management and utilization, and special projects.

The following chart shows the proposed distribution of State and private forestry funds by program area for FY 1987 and FY 1988.

State and Private Forestry Programs



Cooperation With States

Federal activities in State and private forestry are carried out through close cooperation with State Foresters or equivalent officials in the 50 States, the District of Columbia, the Pacific Islands, Puerto Rico, and the U.S. Virgin Islands. The programs are authorized by the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101-2110).

Forest pest management, fire protection, and forest management and utilization programs fund assistance in State forest resource planning. This planning helps States identify their responsibility and priorities for various forestry management programs.

The Forest Service annually coordinates with each State to set priorities and establish specific activities that the State will contribute to the overall national program. Federal assistance is provided to the State, based on these agreed upon program activities. Where Federal funding is reduced or eliminated, individual State priorities and budget constraints determine the level of program activity.

Relation to Other Federal Programs

Forest Service cooperative forestry programs are distinct and complement assistance programs of the Soil Conservation Service, the Cooperative Extension Service, the Agricultural Stabilization and Conservation Service, the Farmers Home Administration, and other USDA agencies. Interagency agreements establish each agency's responsibility for encouraging protection, management, and use of privately owned forest resources.

Federal cooperative forestry programs help achieve resource management objectives associated with the Soil and Water Resources Conservation Act of 1977, the Secretary of Agriculture's National Conservation Program, and the Conservation Reserve program established by the Food Security Act of 1985. Funding in forest management is targeted for controlling erosion and flooding.

Forest Pest Management

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc. (+) or Dec. (-) from Base
(Dollars in thousands)					
<u>Federal lands</u>					
Surveys and technical assistance	\$ 10,924	11,343	12,193	13,742	+1,549
Million acres	130	135	135	142	+7
FTE	260	269	269	269	--
Insect and disease suppression	\$ 7,866	8,102	8,457	10,818	+2,361
Thousand acres	96	N/A	N/A	N/A	--
FTE	98	101	101	101	--
Special projects	\$ 1,191	1,200	1,280	1,219	-61
FTE	25	25	25	25	--
<u>Cooperative Lands</u>					
Surveys and technical assistance	\$ 1,785	1,876	1,876	2,077	+201
Million acres	464	411	411	412	+1
FTE	--	--	--	--	--
Insect and disease suppression	\$ 6,563	8,500	8,500	--	-8,500
Thousand acres	699	N/A	N/A	--	--
FTE	--	--	--	--	--
Total	\$ 28,329	31,021	32,306	27,856	-4,450
FTE	383	395	395	395	--

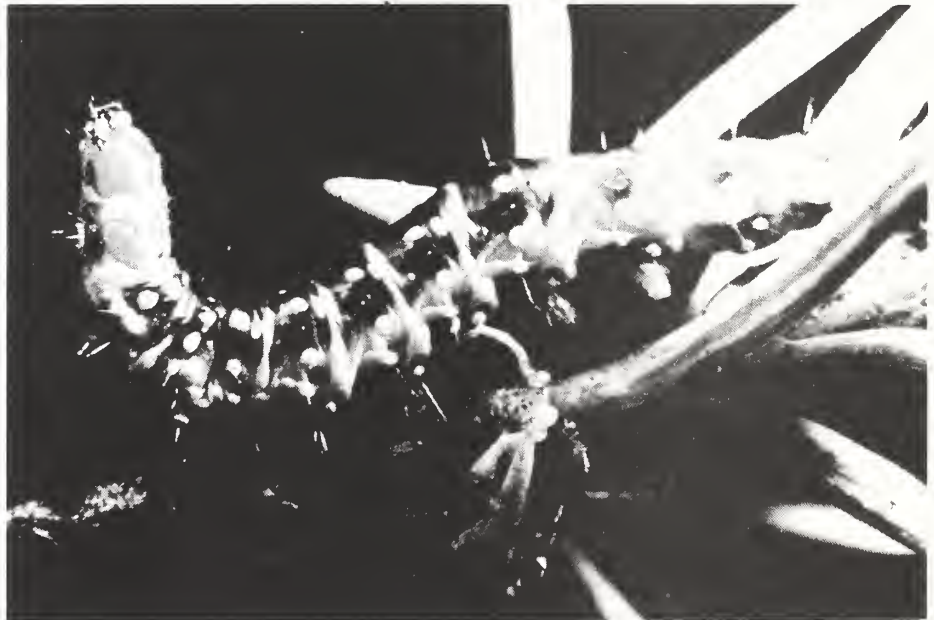
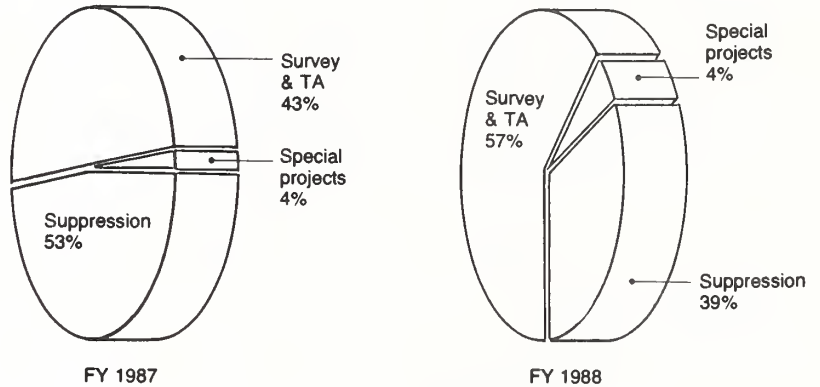
N/A = Not available. Acres are not available until the work is completed.

General

The forest pest management program prevents and reduces insect and disease-caused resource losses, with emphasis on integrated pest management. The program provides technical and financial assistance on all Federal lands and some non-Federal lands for technology transfer; coordinates detection, evaluation, prevention, and suppression of forest insects and diseases; and coordinates pesticide use.

To do this, funding for forest pest management is separated into three categories--surveys and technical assistance, suppression, and special projects. The following chart shows the distribution of funding for these categories for FY 1987 and FY 1988:

Forest Pest Management Program



Major pest problems evaluated in FY 1986 included spruce budworm in the West.

Federal Lands: Surveys and Technical Assistance

Objective

To detect and evaluate insect and disease outbreaks at an early stage in order to reduce suppression costs and forest resource losses. To provide technical assistance on integrated pest management, prevention strategies, and proper use and handling of pesticides.

Program description

This program provides nationwide support for pest detection surveys and evaluations on Federal forest lands administered by the Departments of Agriculture, the Interior, and Defense; and for reports of pest problems to Federal land managers and Congress.

A major goal of this program is to get pest management principles incorporated into forest management and thereby reduce periodic major pest outbreaks and consequent forest resource losses.

It also provides technical advice and information to Federal land managers by sponsoring training, seminars, symposia, and workshops. These are designed to encourage sound pest management strategies and proper use of pesticides in forest resource management.



Major forest pest problems surveyed in FY 1986 included gypsy moth.

In FY 1986, 130 million acres of Federal forest lands were surveyed, resulting in 496 biological evaluations on 15 million acres of land. Major forest pest problems surveyed and evaluated in FY 1986 included spruce decline and gypsy moth in the East; dwarf mistletoe, mountain pine beetle, Engelmann spruce beetle, Douglas-fir tussock moth, root rots, and spruce budworm in the West; and southern pine beetle and oak wilt in the South. These surveys and evaluations delineated insect and disease occurrences, including damage possibly caused by atmospheric pollution or acid deposition, and provided land managers with information needed to evaluate control needs and options.

Through this program in FY 1986, 1,439 Federal employees received training in insect and disease management and 127 Federal employees were trained in pesticide-use management and coordination.

**Increase
for 1988**

<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
(Dollars in thousands)		

Federal lands:

Surveys and technical assistance	\$	12,193	13,742	+1,549
	FTE	269	269	--

An increase of \$1,549,000 is proposed from the 1988 base.

This will permit survey of an additional 7 million acres of Federal land to detect pest outbreaks while they are small and can be more efficiently managed.

An increased level of technical assistance and training will be provided to Federal and State land managers.

**Object class
information**

Transportation of things	+64
Rent, communications, and utilities	+416
Printing and reproduction	+43
Other services	+792
Supplies, materials, and equipment	+234
Total	+1,549

Federal Lands: Insect and Disease Suppression

Objective To prevent and reduce unacceptable forest resource losses by suppressing damaging forest insects and diseases with the latest integrated pest management techniques. To maintain healthy, productive forest environments.

Program description This program uses cultural, biological, chemical, and mechanical methods to suppress major forest pests that weaken and kill trees, slow growth, and reduce the quality of the forest environment. Examples of current major pest outbreaks are the gypsy moth, spruce budworm, bark beetles, and dwarf mistletoes.

During FY 1986, insect and disease outbreaks on about 83,000 acres of National Forest System lands and 13,000 acres of other Federal lands were treated. This treatment protected about 269 million cubic feet of merchantable timber. Salvage harvests removed 60 million cubic feet of infested merchantable timber. These suppression activities reduced further degradation of aesthetics, recreation, wildlife, water quality, and other resource values in the treatment areas. Also, 18 million acres of Federal lands received initial biological evaluations, and 257,000 acres were surveyed to determine effects of treatment.

Initial targets for pest suppression are not included for FY 1987 and FY 1988, as specific outbreaks cannot be forecast at this time. However, expectations are that major pest outbreaks will continue and suppression will be necessary to reduce economic damage and tree mortality from mistletoes, bark beetles, and defoliators.

Increase for 1988			
	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Federal lands			
Insect and disease			
suppression	\$ 8,457	10,818	+2,361
FTE	101	101	--

An increase of \$2,361,000 is proposed from the 1988 base.

This will provide for treating high priority pests capable of causing the most severe damage.

The increase will also allow for preparing documentation related to major litigation on forest pest suppression, obtaining technical and legal assistance in preparing risk and worst-case analyses, and compiling information on pesticides used in forest pest suppression projects.

Federal funds will be used on State and private lands when Federal suppression projects include intermingled State and private lands as part of a biologically sound treatment unit. States and private landowners will be responsible for suppression on their lands.

Object class information	Transportation of things	+34
	Rent, communications, and utilities	+464
	Printing and reproduction	+27
	Other services	+1,657
	Supplies, materials, and equipment	+179
	Total	+2,361

Special Projects

Objective To develop and demonstrate new or improved technology and bring it into use. To obtain information on long term pest impacts. To assess benefits and risks of using pesticides for forest pest management activities.

Program description This program:

-- Assesses the long-term impacts of pests such as spruce budworm, gypsy moth and other defoliators, and bark beetles, as well as spruce decline and air pollution to provide information for improving pest management program decisions.

-- Develops, improves, and demonstrates new technologies, materials, methods, and strategies to improve the efficiency of forest pest management.

-- Evaluates the benefits and environmental risks of using pesticides critically important to forestry under the USDA-National Agricultural Pesticide Impact Assessment Program (NAPIAP). NAPIAP projects fill data gaps on environmental effects, human exposure, and timber growth yields associated with the use of pesticides in forestry.

In FY 1987, special projects include the cooperative Maryland integrated pest management gypsy moth pilot project, acid deposition assessments in the Northeast, and continued production of the Douglas-fir tussock moth virus at the Forestry Sciences Laboratory in Corvallis, Oregon.

Decrease for 1988	1988			<u>Decrease</u>
	<u>Base</u>	<u>Estimate</u>	(Dollars in thousands)	
Federal lands:				
Special projects	\$ 1,280	1,219		-61
FTE	25	25		--

A decrease of \$61,000 is proposed from the 1988 base.

This program level will continue high-priority special projects related to gypsy moth control (except the Cooperative Maryland IPM pilot project, which has been completed), acid deposition assessments, and production of Douglas-fir tussock moth virus.

Object class information	Supplies, material, and equipment	-7
	Other services	-54
	Total	-61

Cooperative Lands: Surveys and Technical Assistance

Objective

To maximize Federal and State efficiency in carrying out a coordinated pest management program. To detect and evaluate insect and disease outbreaks in their early stages, so that forest resource losses and suppression costs are reduced. To provide technical assistance and coordination on pest management activities on State and private lands. To provide Federal forest managers information about pest activities on adjacent lands.

Program description

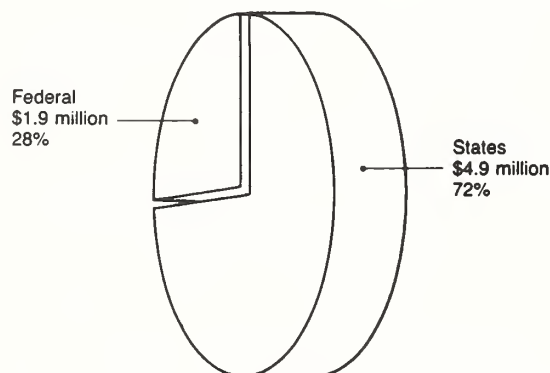
The Cooperative Forest Pest Action Program shares costs with the States for surveying and evaluating insects and diseases. These assessments of pest-caused damage on non-Federal forest resources provide managers of Federal lands, intermingled with State and private lands, information needed to redeem USDA pest management coordination roles. The information is also used to assess the condition of the nation's forest resources with respect to pest-caused damages.

The program shares the cost of providing technical assistance and transferring research results to private forest landowners, helping ensure coordination of a sound pest management program. This coordinated approach to pest management across all forest ownerships increases effectiveness and efficiency and minimizes damage to the environment and human health that can result from uninformed and uncoordinated pest management activities.

In FY 1986, this program surveyed about 464 million acres of State and private lands to detect pests. These surveys resulted in 1,943 evaluations of pest conditions on about 97 million acres.

In FY 1986, this program helped train about 14,000 State personnel in insect and disease management and about 3,600 personnel in pesticide-use management and coordination.

Cooperative Surveys and Technical Assistance 1986 Financial Assistance



**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Cooperative lands:			
Surveys and technical			
assistance \$	1,876	2,077	+201
FTE	--	--	--

An increase of \$201,000 is proposed from the 1988 base.

This program level continues the current Cooperative Forest Pest Action Program. This program assesses pest-caused damage on non-Federal forest resources and provides Federal and other land managers information needed to carry out management responsibilities.

**Object class
information**

Other services	+140
Grants, subsidies, and contributions	+61
Total	+201

Cooperative Lands: Insect and Disease Suppression

Objective

To prevent and reduce unacceptable forest resource losses on State and private forests by suppressing damaging forest insects and diseases with the latest integrated pest management techniques. To facilitate the coordination of suppression projects on intermingled land ownerships. To maintain healthy, productive forest environments.

Program description

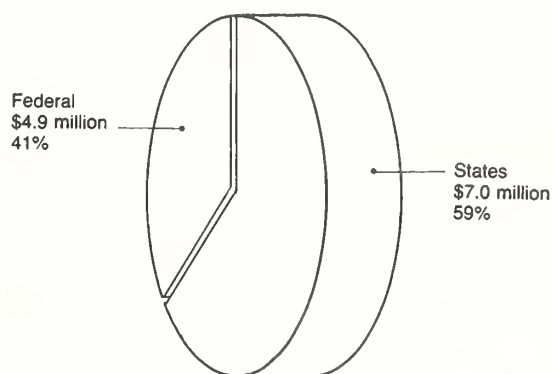
Current major problems on State and private lands are gypsy moth, spruce budworm, and bark beetle.

In FY 1986, Federal financial assistance was provided for projects that met Federal biological, environmental, and economic criteria. In FYs 1986 and 1987, this program funds 25 percent of suppression activities on non-Federal public lands, 33-1/3 percent on industrial lands, and 50 percent on nonindustrial private lands.

In FY 1986, this program treated 699,000 acres of State and private lands, protected 557 million cubic feet of merchantable timber, and removed 79 million cubic feet of infested merchantable timber through salvage operations. In addition, about 117 million acres received initial biological evaluations, and about 784,000 acres were surveyed to determine effects of treatment.

In FY 1986, this program also provided \$4.4 million to the Department of Agriculture's Animal and Plant Health Inspection Service for gypsy moth control in Oregon. In addition, the Forest Service provided technical assistance for the gypsy moth control project. Forest pest management cooperated with the State Department in detailing pest management specialists to Africa to provide technical assistance for emergency grasshopper suppression activities.

Cooperative Insect and Disease Suppression 1986 Financial Assistance



**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Cooperative lands:			
Insect and disease suppression	\$ 8,500	--	-8,500
FTE	--	--	--

A decrease of \$8,500,000 is proposed from the FY 1988 base. This will eliminate Federal financial assistance to the States for cooperative insect and disease suppression projects, except where intermingled State and private lands are involved in a Federal lands suppression project. (See Federal lands: Insect and Disease Suppression).

**Object class
information**

Rent, communications, and utilities	-141
Other services	-348
Grants, subsidies, and contributions	-8,011
Total	-8,500

Fire Protection

	1986 <u>Actual</u>	1987 Approp. Enacted to Date	1988 <u>Base</u>	1988 <u>Estimate</u>	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Fire protection \$	13,032	13,600	13,785	4,778	-9,007
FTE	55	55	55	55	--

Objective To achieve efficiency in fire protection on non-Federal wildlands. To cooperate, participate, and consult with the States on fire protection for non-Federal wildlands and other rural lands.

Program description States and their political subdivisions have are primarily responsible for fire protection on non-Federal lands. The cooperative fire protection (CFP) program uses Forest Service technical and related assistance to help the States efficiently and adequately protect non-Federal wildlands. Federal program objectives are achieved through leadership, coordination, and cooperation with the States. The program emphasizes Forest Service participation in activities that result in the most efficient level of cooperative fire protection, with priority on activities of national interest. The cooperative fire protection program helps protect 834 million acres of non-Federal lands from wildfire.

The CFP program consists of:

- Wildland fire protection. Providing Federal technical and related assistance in fire protection for non-Federal wildlands. The wildland/community fire protection initiative responds to increased fire hazard and risk caused by increased residential development in wildlands. Such development increases the need for coordinated fire protection between Federal and non-Federal lands.

- Federal excess personal property. Loaning Federal excess personal property to State forestry agencies for rural fire protection programs. Because of the shortage of some types of property in this program, an efficiency analysis is used to assign the property where the greatest potential gain can be expected.

- Smokey Bear program. Continuing a nationwide fire prevention program through public service advertisements and educational programs. This program is partially funded through a permanent appropriation, licensee programs.

National interest priorities which the CFP addresses are:

- Information. Collecting consistent data for planning and analysis, assessing accomplishments and opportunities for improved management, and doing efficiency studies.

- Analysis and planning. Helping States efficiently use fire protection resources and implement and maintain efficient levels of fire protection.

- Technology development and transfer. Helping develop and transfer new ideas and technologies between States and Federal agencies.

- Shared protection resources. Developing and maintaining fire protection resources to share among Federal, State, and local agencies for more cost-effective operations.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Fire protection \$	13,785	4,778	-9,007
FTE	55	55	--

A decrease of \$9,007,000 is proposed from the FY 1988 base.

This program level will provide specialized technical assistance to the States and permit a basic level of information and reporting of fire data. Fire data from cooperators will increase fire data available for Federal use.

Technical assistance will focus on improving fire analyses for more efficient fire organizations and use of existing resources.

Financial assistance will be eliminated. Greater reliance will be placed on local units to assume responsibility for training, equipping, and mobilizing State firefighting forces to fulfill fire protection responsibilities for their lands. State forces will be relied upon to support Forest Service operations during periods of high fire activity.

This level of funding will limit the Federal role to providing specialized technical assistance to States in:

- Addressing urban wildland interface issues associated with the wildland/community fire protection initiative, and implementing wildland fire prevention programs.

- Completing basic State efficiency analysis, incorporating results into regional and national plans, and providing new technology in fire planning.

- Training in and implementing the National Interagency Incident Management System, a total systems approach that provides for an all-risk incident command.

- Participating with all Federal agencies in national wildland fire coordination, and participation as members of the National Wildfire Coordinating Group and national training courses.

- Transferring firefighting technology for standardization, and coordinating shared resources between State and Federal agencies.

- Acquiring and managing Federal excess personal property.

- Providing technical advice to the Federal Emergency Management Agency in State fire emergencies.

**Object class
information**

Other services	+37
Grants, subsidies, and contributions	-9,044
Total	-9,007

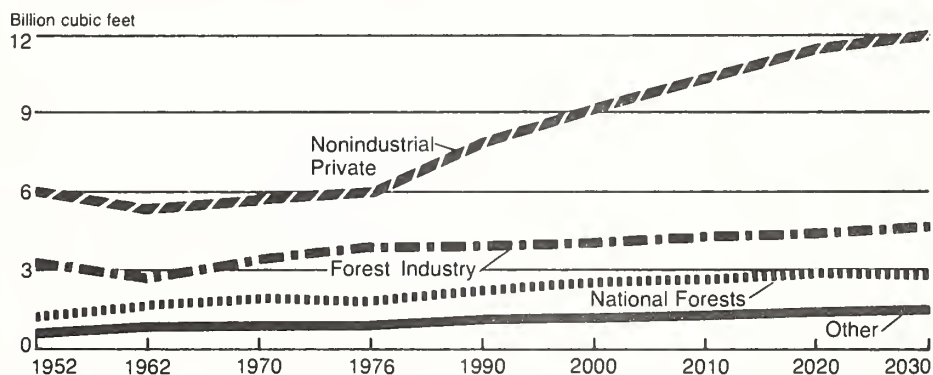
Forest Management and Utilization

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Forest resource management \$	4,981	5,200	5,337	--	-5,337
Thousand acres	3,821	3,490	3,490	--	-3,490
FTE	44	45	45	--	-45
Wood utilization \$	913	1,000	1,060	--	-1,060
FTE	20	21	21	--	-21
Seedlings, nursery and tree improvement \$	1,721	1,800	1,837	--	-1,837
Million seedlings	708	725	725	--	-725
FTE	12	12	12	--	-12
Urban forestry \$	1,903	1,925	1,960	--	-1,960
FTE	11	11	11	--	-11
Total \$	9,518	9,925	10,194	--	-10,194
FTE	87	89	89	--	-89

General

Private nonindustrial forest lands are a major source of U.S. wood supplies, providing 47 percent of roundwood supplies to the forest products industry. Timber output from nonindustrial private forest lands is projected to be the largest source of future U.S. wood supply. Cooperative Federal-State programs improve their productivity.

Roundwood Supplies by Ownership Class with Projections to 2030



Source—Wood Use: U.S. Competitiveness and Technology (Washington, D.C., U. S. Congress, Office of Technology Assessment, August, 1983)

Forest Resource Management

Objective

To improve forest management. To protect soil and water resources on nonindustrial private forest lands.

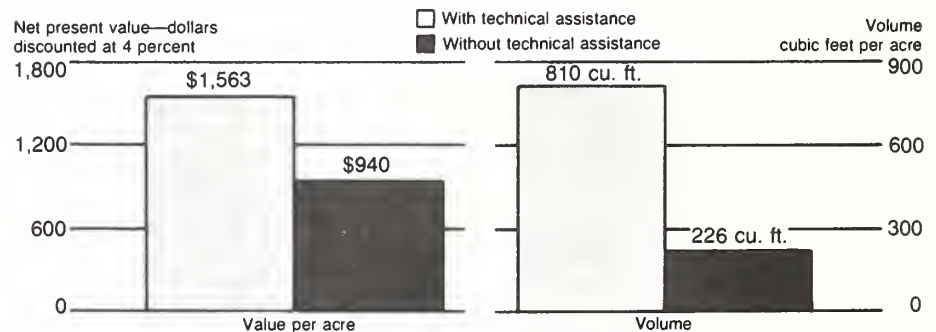
Program description

Cooperative technical assistance in forest management is provided by the Forest Service through State forestry agencies.

This assistance improves the likelihood of reforestation after harvesting, increases economic return to encourage private investment in forest management, enhances water quality, and ensures the value and quality of stocking of forest stands after harvest or cutting to improve timber stands. Forest lands of owners who receive such technical assistance are more valuable, contribute more to future timber supplies, have greater timber volume, and retain more value in residual stands after harvesting. Improper harvesting and logging operations may reduce water quality and diminish the quality and value of residual forest stands after harvesting.

This program also coordinates cooperative technical assistance in implementing the Conservation Reserve Program established by the Food Security Act of 1985 (P.L. 99-198). Under the guidance of the Forest Service, State service foresters will work with the Soil Conservation Service and the Agricultural Stabilization and Conservation Service to help landowners place eroding cropland in the Conservation Reserve Program. State service foresters and contracted private consulting foresters will provide technical assistance to landowners to develop tree planting plans and ensure quality control during tree planting.

Economic Value of Technical Assistance Provided through Cooperative Forest Management Programs



Value and volume of nonindustrial private forest land

Source: Cubbage, Fredrick W. "The Economic Contribution of Cooperative Forest Management Programs." University of Georgia, 1984.

Currently, 66 percent of harvested acres in the South remain unstocked or regenerate in low-quality hardwoods. However, the probability of a landowner reforesting lands following harvest is 60 percent greater when a service forester is consulted.

Research has shown that forest management assistance provided by service foresters is the most important factor influencing reforestation decisions by landowners, exceeding the influence of market variables, income, and size of ownership.



Technical assistance--service forester and landowner evaluating tree growth and site productivity.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Forest resource management \$	5,337	--	-5,337
FTE	45	--	-45

A decrease of \$5,337,000 is proposed from the 1988 base.

This discontinues Federal funding for assistance to States in forest resource management.

States will continue these activities according to their priorities and budget constraints.

**Object class
information**

Salaries and benefits	-1,994
Travel	-179
Other services	-167
Grants, subsidies, and contributions	-2,997
Total	-5,337

Wood Utilization

Objective

To increase the value and utilization of timber and wood products through improved harvesting, processing, and marketing.

Program description

By providing landowners and wood processors with the latest information available on harvesting, processing, and marketing of forest products, Federal and State utilization and marketing specialists significantly help improve the value and use of forest resources. This improves the competitiveness of the forest products industry in the U.S. and expands opportunities to increase exports and reduce imports. This program helps State and local governmental agencies in economic development of communities with potential for forest industry growth.

Technical assistance, such as computer simulation of log processing in the sawmill, encourages increased utilization of harvested timber by clearly defining recovery alternatives. Wood product manufacturing costs are reduced by applying such information, thus generating higher profits for industry and increasing tax returns to the U.S. Treasury. If half of the firms that receive technical assistance in lumber processing undertake recommended improvements, tax payments to the U.S. Treasury would increase an estimated \$22.8 million a year.

In FY 1987, emphasis will be directed toward marketing assistance--expanding the range of markets for forest products to improve economic conditions. This provides great potential for improving residual forest resource conditions. Specific marketing activities planned for FY 1987 include:

- Helping forest products companies enter or expand international trade.
- Focusing activities on projects that demonstrate new products or manufacturing processes.
- Coordinating regional marketing conferences.
- Conducting feasibility studies to evaluate the potential for increased forest products production.

Technical assistance in timber harvesting substantially reduces loss of quality and volume of wood due to improper harvesting. On the average, operators lose about 6 percent of merchantable wood volume during harvesting because of poor or careless practices. This is equivalent to the loss of about 4.8 billion board feet (752 million cubic feet) of the timber that is harvested annually.

A new computer program called UCHEK will enable Federal timber sales administrators to better evaluate and improve recovery at logging operations. This will increase operators' profits and Forest Service receipts. State and private forestry utilization specialists are training Federal timber sales administrators in the use of this program.



Harvester in a pole-sized stand. Converting marginal material to marketable products now ensures the availability of higher quality timber in the future.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Wood utilization \$	1,060	--	-1,060
FTE	21	--	-21

A decrease of \$1,060,000 is proposed from the 1988 base.

This discontinues Federal funding for assistance to the States in wood utilization.

States will continue these activities according to their priorities and budget constraints. The Forest Service recommends that States expand their efforts to identify market opportunities to offset increasing wood product trade imbalances.

**Object class
information**

Salaries and benefits	-935
Travel	-37
Rent, communications, and utilities	-20
Other services	-57
Supplies, materials, and equipment	-11
Total	-1,060

Seedlings, Nursery and Tree Improvement

Objective

To provide high quality genetically improved tree seed and planting stock for reforestation, which protects soil and water resources and improves productivity.

Program description

The cooperative Federal-State program is directed toward upgrading the quality of nursery operations and to producing trees with improved growth, form, and resistance to insects and disease.

The 88 State forest nurseries, developed with Federal and State funds, produce about 38 percent of total seedling production in the United States. About 25 percent of the production from these nurseries is planted on industrial lands, 64 percent on nonindustrial private lands, and 11 percent on State, Federal, and other lands.

Increased yields of up to 20 to 30 percent are possible through second-generation genetic improvement in tree breeding. These productivity gains are permanent, and increase stand values by 30-50 percent due to faster growth and improved wood quality.

Meeting the forest industry's projected softwood timber demand requires doubling reforestation. Use of high quality genetically improved planting stock results in faster growing trees and higher survival rates for seedlings to meet reforestation needs.

The Conservation Reserve program is expected to double the demand for seedlings on nonindustrial private forest lands during the remaining 4 years of the program. About 4 to 5 million acres of trees will be planted on eroding cropland as part of the 40 to 45 million acre reserve. This will be an annual average of 1 million more acres of trees planted in addition to the current 850 thousand acres of annual tree planting on private land. This program will provide technical assistance to State, private, and forest industry nurseries to ensure that acceptable seedlings are produced and distributed where needed to accomplish the erosion reduction goals of this national program.



Loblolly pine seedlings in a Southern nursery. About 62 percent of all planting stock produced in Southern State nurseries is now genetically improved. Technical and financial assistance in tree improvement produces first-generation seedlings that grow 15 percent faster with better quality wood.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Seedlings, nursery, and tree improvement \$	1,837	--	-1,837
FTE	12	--	-12

A decrease of \$1,837,000 is proposed from the 1988 base.

This eliminates the Federal program for seedlings, nursery, and tree improvement.

To meet requirements of the Federal Conservation Reserve program, States will need to substantially increase their seedling and nursery programs. Success of the Conservation Reserve tree planting program will be dependent upon States upgrading seedling production and nursery facilities.

States vary in their practices of charging for seedlings. As private landowners start to participate in the Conservation Reserve Program, for which they receive Federal payments, more States are expected to operate their nurseries on a full cost recovery basis.

**Object class
information**

Salaries and benefits	-491
Travel	-44
Grants, subsidies, and contributions	-1,302
Total	-1,837

Urban Forestry

Objective

To maximize contribution of urban forests to improved soil, water, and air quality; energy production and conservation; and enhancement of community environment.

Program description

The urban forestry program provides technical assistance to State forestry agencies to encourage management of trees, forests, and associated natural resources in and near urban areas. Target audiences are planners, developers, builders, city foresters, citizen groups, tree service companies, forestry consultants, and homeowners.

This program arranged the third National Urban Forestry conference in Orlando, Florida, December 7-11, 1986, attended by over 600 participants. The attendees received current technical information and established or renewed communication and education networks.

Projects in several States with active urban forestry programs are encouraging other States to build and improve urban forestry programs of their own.

-- The City of Portland, Oregon has developed programs to protect and care for its tree resources. The Portland urban forest includes 8,000 acres of park lands and 1,700 miles of streets planted with over 200,000 trees.

-- A sawmill built in Philadelphia, Pennsylvania, processes diseased and pest-infested trees removed from Fairmont Park. This lumber is used by the City to employ underprivileged teenagers in making banisters, shelving, and molding for use in housing rehabilitation.

-- In Illinois, a cooperative educational project has resulted in the development of teaching assistance packets, one of which is dedicated to nature interpretation along the North Branch Bicycle Trail, which winds along a branch of the Chicago River and the Botanical Gardens, in Northeastern Cook County.

-- The State of Georgia has hired eight urban foresters, primarily for shade tree diagnosis and evaluation, and has developed a series of urban forestry film and slide tape programs to educate the public.

-- The State of Ohio has been actively promoting urban forestry. During the past year, eight Ohio cities received "Tree City USA" awards. Dayton, Ohio, is currently participating in a study, based on a recently developed research model, to determine the best areas to replant to trees.

-- The City of Coeur d'Alene, Idaho, received a "Tree City USA" award in 1986. The city completed several beautification projects, developed a comprehensive tree ordinance, conducted street tree inventories, and participated in the annual Arbor Day festivities.



The urban forestry program provides technical assistance to help States manage urban trees and other natural resources in urban areas.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Urban forestry \$	1,960	--	-1,960
FTE	11	--	-11

A decrease of \$1,960,000 is proposed from the 1988 base.

This eliminates Federal funding for assistance to the States in urban and community forestry.

It is expected that States and cities will continue these activities according to their priorities and budget constraints.

**Object class
information**

Salaries and benefits	-509
Other services	-136
Grants, subsidies, and contributions	-1,315
Total	-1,960

Special Projects

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
	(Dollars in thousands)				
Boundary Waters					
Canoe Area \$	2,854	2,800	2,800	2,800	--
FTE	--	--	--	--	--
Pinchot Institute for					
Conservation Studies \$	190	200	214	--	-214
FTE	4	4	4	--	-4
Lake Tahoe					
(P.L. 96-586) \$	1,398	1,400	1,408	--	-1,408
FTE	3	3	3	--	-3
Total \$	4,442	4,400	4,422	2,800	-1,622
FTE	7	7	7	--	-7

General

Special projects involve activities to accomplish specialized objectives usually not available through other Forest Service programs. Current activities include intensive forest management associated with establishment of the Boundary Waters Canoe Area Wilderness in Minnesota, the Pinchot Institute for Conservation Studies, and water pollution control and mitigation of soil erosion in the Lake Tahoe Basin.

Boundary Waters Canoe Area

Objective

To provide technical and financial assistance to the State of Minnesota in implementing the Boundary Waters Canoe Area Wilderness legislation.

Program description

The Boundary Waters Canoe Area project provides for an intensive forest management program on State, county, and private lands in Minnesota.

Under Section 6 of P.L. 95-495, intensive forest management activities are concentrated in the five northeastern Minnesota counties of Lake, Cook, St. Louis, Koochiching, and Carlton to help sustain the yield of softwood timber.

In FY 1986, the State provided \$712,950 to fund these forest management activities, with \$2,854,000 of Federal funds. Program accomplishments in FY 1986 and planned accomplishments in FY 1987 and FY 1988 with combined State and Federal funding are:

	<u>FY 1986 (actual)</u>	<u>FY 1987 (planned)</u>	<u>FY 1988 (planned)</u>
Reforestation.....(acres)	20,500	19,000	20,500
Timber stand improvement.....(acres)	8,700	8,000	8,700
Road maintenance and improvement..(miles)	740	690	740
Seedling production...(million seedlings)	24	21	24

**No change
for 1988**

Pinchot Institute for Conservation Studies

Objective To serve as a center for advancing and developing the natural resource conservation/wise use concept. To examine and address emerging conservation issues. To restore and manage the Grey Towers National Historic Landmark as a unique cultural and historic resource for interpreting the development of American forestry and natural resources conservation.

Program description The Pinchot Institute for Conservation Studies is a special unit of the Forest Service located at the Grey Towers National Historic Landmark in Milford, Pennsylvania. Grey Towers was the home of Gifford Pinchot, pioneer conservationist, founder and first Chief of the Forest Service, and Governor of Pennsylvania.

The Pinchot Institute serves as host for the Pinchot-Yale University small seminar series on emerging resource issues and helps national resource organizations arrange conferences and lectures on conservation. In 1986, the Institute sponsored symposia on "Population Change, Natural Resources, and Regionalism," with the Conservation Foundation, and on "Federal Income Tax Change and the Private Forest Sector." Both symposia involved experts from throughout the United States.

Decrease for 1988		1988	1988	<u>Decrease</u>
		<u>Base</u>	<u>Estimate</u>	
		(Dollars in thousands)		
	Pinchot Institute for			
	Conservation Studies ... \$	214	--	-214
	FTE	4	--	-4

A decrease of \$214,000 is proposed from the 1988 base.

This eliminates specific line item funding for the Pinchot Institute for Conservation Studies.

Funding to maintain normal operations and programs at the Pinchot Institute will be provided from benefiting appropriations within the Forest Service regular budget.

Object class information	Salaries and benefits	-97
	Travel	-14
	Rent, communications, and utilities	-34
	Other services	-26
	Supplies, materials, and equipment	-43
	Total	-214

Lake Tahoe (P.L. 96-586)

Objective To control water pollution and mitigate soil erosion on non-Federal lands within the Lake Tahoe Basin.

Program description Based on amounts appropriated for land acquisition within the Lake Tahoe Basin, funds are provided to implement Section 2(g) of P.L. 96-586. The funds are for soil erosion activities and control of water pollution on non-Federal lands within the Lake Tahoe Basin in both California and Nevada. In FY 1986, these special project funds were targeted at State, county, and private lands.

Decrease for 1988	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Lake Tahoe	\$ 1,408	--	-1,408
FTE	3	--	-3

A decrease of \$1,408,000 is proposed from the 1988 base.

This will discontinue financial assistance to local jurisdictions for soil erosion activities and water pollution control efforts on non-Federal lands within the Lake Tahoe Basin.

Object class information	Other services	-8
	Grants, subsidies, and contributions	-1,400
	Total	-1,408

State and Private Forestry Financial Assistance, by State
FY 1986 - Actual
(Dollars in thousands)

	FPM	Fire	FM&U	Special Projects	Total
Alabama	\$ 324	\$ 260	\$ 158	\$ --	\$ 742
Alaska	5	179	25	--	209
Arizona	19	63	62	--	144
Arkansas	130	234	105	--	469
California	48	704	30	1,064	1,846
Colorado	311	259	74	--	644
Connecticut	1	50	14	--	65
Delaware	271	47	46	--	364
Florida	56	320	177	--	553
Georgia	258	303	191	--	752
Guam	4	47	21	--	72
Hawaii	18	66	22	--	106
Idaho	59	192	66	--	317
Illinois	27	99	75	--	201
Indiana	31	65	49	--	145
Iowa	18	52	25	--	95
Kansas	27	146	76	--	249
Kentucky	--	208	113	--	321
Louisiana	401	264	119	--	784
Maine	65	219	79	--	363
Maryland	575	141	108	--	824
Massachusetts	43	138	114	--	295
Michigan	123	267	106	--	496
Minnesota	64	201	90	2,854	3,209
Mississippi	256	270	147	--	673
Missouri	41	250	123	--	414
Montana	34	215	54	--	303
Nebraska	27	142	73	--	242
Nevada	25	114	39	334	512
New Hampshire	42	96	88	--	226
New Jersey	591	175	53	--	819
New Mexico	28	124	75	--	227
New York	59	248	129	--	436
North Carolina	117	287	245	--	649
North Dakota	13	59	21	--	93
Ohio	33	149	85	--	267
Oklahoma	30	144	67	--	241
Oregon	50	291	170	--	511
Other Pacific Islands	21	--	162	--	183
Pennsylvania	986	273	84	--	1,343
Puerto Rico	--	47	70	--	117
Rhode Island	108	48	19	--	175
South Carolina	213	273	121	--	607
South Dakota	19	199	61	--	279
Tennessee	49	244	123	--	416
Texas	507	227	147	--	881
Utah	--	104	71	--	175
Vermont	31	47	64	--	142
Virgin Islands	--	24	31	--	55
Virginia	150	273	214	--	637
Washington	55	290	131	--	476
West Virginia	348	154	55	--	557
Wisconsin	53	263	68	--	384
Wyoming	32	122	57	--	211
Washington, D.C.	--	--	6	--	6
Total, States	\$6,796	\$ 9,676	\$4,798	\$ 4,252	\$25,522

State and Private Forestry Financial Assistance, by State
FY 1987 - Estimate
(Dollars in thousands)

	FPM	Fire	FM&U	Special Projects	Total
Alabama	\$ 83	\$ 277	\$ 184	\$ --	\$ 544
Alaska	5	191	50	--	246
Arizona	17	67	77	--	161
Arkansas	60	250	132	--	442
California	41	750	108	1,316	2,215
Colorado	33	275	110	--	418
Connecticut	1	53	21	--	75
Delaware	17	50	28	--	95
Florida	62	340	232	--	634
Georgia	77	322	218	--	617
Guam	7	50	48	--	105
Hawaii	16	70	53	--	139
Idaho	44	204	77	--	325
Illinois	30	106	83	--	219
Indiana	30	69	66	--	165
Iowa	20	55	26	--	101
Kansas	26	155	97	--	278
Kentucky	--	222	120	--	342
Louisiana	65	281	134	--	480
Maine	73	233	108	--	414
Maryland	26	150	85	--	261
Massachusetts	22	147	84	--	253
Michigan	64	284	107	--	455
Minnesota	69	214	76	2,800	3,159
Mississippi	63	288	167	--	518
Missouri	46	266	125	--	437
Montana	39	229	93	--	361
Nebraska	26	151	102	--	279
Nevada	16	121	49	84	270
New Hampshire	38	103	76	--	217
New Jersey	22	186	60	--	268
New Mexico	33	132	80	--	245
New York	65	264	93	--	422
North Carolina	80	305	286	--	671
North Dakota	20	63	62	--	145
Ohio	37	158	92	--	287
Oklahoma	33	153	89	--	275
Oregon	54	310	264	--	628
Other Pacific Islands	5	--	20	--	25
Pennsylvania	66	291	71	--	428
Puerto Rico	--	50	83	--	133
Rhode Island	20	51	21	--	92
South Carolina	54	291	138	--	483
South Dakota	17	212	79	--	308
Tennessee	54	260	145	--	459
Texas	54	241	165	--	460
Utah	--	111	104	--	215
Vermont	31	50	55	--	136
Virgin Islands	--	26	32	--	58
Virginia	66	291	246	--	603
Washington	60	309	209	--	578
West Virginia	45	164	98	--	307
Wisconsin	59	280	91	--	430
Wyoming	25	129	67	--	221
Washington, D.C.	--	--	28	--	28
Total, States	\$2,016	\$10,300	\$5,614	\$ 4,200	\$22,130
Suppression available for Coop. Lands	8,011 <u>1/</u>	--	--	--	8,011
Total Program	\$10,027	\$10,300	\$ 5,614	\$ 4,200	\$30,141

1/ State distribution not available at this time.

State and Private Forestry Financial Assistance, by State
FY 1988 - Estimate
(Dollars in thousands)

	FPM	Fire	FM&U	Special Projects	Total
Alabama	\$ 90	\$ 34	\$ --	\$ --	\$ 124
Alaska	--	23	--	--	23
Arizona	18	8	--	--	26
Arkansas	66	30	--	--	96
California	45	91	--	--	136
Colorado	29	34	--	--	63
Connecticut	18	7	--	--	25
Delaware	--	6	--	--	6
Florida	62	43	--	--	105
Georgia	112	39	--	--	151
Guam	9	6	--	--	15
Hawaii	18	9	--	--	27
Idaho	34	25	--	--	59
Illinois	31	13	--	--	44
Indiana	31	8	--	--	39
Iowa	21	7	--	--	28
Kansas	21	19	--	--	40
Kentucky	--	27	--	--	27
Louisiana	65	34	--	--	99
Maine	79	28	--	--	107
Maryland	26	18	--	--	44
Massachusetts	18	18	--	--	36
Michigan	69	35	--	--	104
Minnesota	60	26	--	2,800	2,886
Mississippi	69	35	--	--	104
Missouri	51	32	--	--	83
Montana	38	28	--	--	66
Nebraska	21	18	--	--	39
Nevada	18	15	--	--	33
New Hampshire	33	13	--	--	46
New Jersey	23	23	--	--	46
New Mexico	34	16	--	--	50
New York	65	32	--	--	97
North Carolina	87	37	--	--	124
North Dakota	18	8	--	--	26
Ohio	39	19	--	--	58
Oklahoma	31	19	--	--	50
Oregon	59	38	--	--	97
Other Pacific Islands	--	--	--	--	--
Pennsylvania	72	35	--	--	107
Puerto Rico	--	6	--	--	6
Rhode Island	18	6	--	--	24
South Carolina	59	35	--	--	94
South Dakota	19	26	--	--	45
Tennessee	56	32	--	--	88
Texas	59	29	--	--	88
Utah	--	14	--	--	14
Vermont	31	6	--	--	37
Virgin Islands	--	3	--	--	3
Virginia	66	35	--	--	101
Washington	62	38	--	--	100
West Virginia	49	20	--	--	69
Wisconsin	58	34	--	--	92
Wyoming	20	16	--	--	36
Washington, D.C.	--	--	--	--	--
Total, States	\$2,077	\$ 1,256	\$ --	\$ 2,800	\$ 6,133

STATE AND PRIVATE FORESTRY

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1105-0-1-302				
Program by activities:				
Direct program:				
	1. Forest pest management	27,487	30,552	28,408
	2. Fire protection	12,221	13,488	4,778
	3. Forest management and utilization	10,013	11,060	---
	4. Special projects.....	4,666	4,400	2,800
	Total direct program	54,387	59,500	35,986
	Reimbursable program	5,615	4,800	2,500
10.00	Total obligations	60,002	64,300	38,486
Financing:				
Offsetting collections from:				
11.00	Federal funds	-5,355	-4,580	-2,365
14.00	Non-Federal sources	-260	-220	-135
17.00	Recovery of prior year obligations ...	-228	---	---
21.40	Unobligated balance available start of year	-1,506	-2,295	-944
24.40	Unobligated balance available, end of year	2,295	944	392
25.00	Unobligated balance lapsing	373	---	---
39.00	Budget authority	55,321	58,149	35,434
Budget authority:				
40.00	Appropriation	55,321	58,946	35,434
45.00	Transfer out for pay raises and retirement contributions	---	-797	---
Relation of obligations to outlays:				
71.00	Obligations incurred, net	54,387	59,500	35,986
72.40	Obligated balance, start of year ...	19,521	20,023	21,044
74.40	Obligated balance, end of year	-20,023	-21,044	-17,405
78.00	Adjustments in unexpired accounts ..	-228	---	---
90.00	Outlays	53,657	58,479	39,625

STATE AND PRIVATE FORESTRY

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1105-0-1-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	10,475	11,018	9,272
11.3	Other than full-time permanent	1,573	1,652	1,446
11.5	Other personnel compensation	570	547	426
11.8	Special personnel service payments	8	8	6
11.9	Total personnel compensation	12,626	13,225	11,150
Personnel benefits:				
12.1	Civilian	1,702	1,783	1,503
13.0	Benefits for former personnel	342	360	303
21.0	Travel and transportation of persons ...	532	569	846
22.0	Transportation of things	162	173	257
23.1	Standard level user charges	1,578	1,471	988
23.2	Rental payments to others	111	119	177
23.3	Communications, utilities, and miscella- neous charges	490	524	779
24.0	Printing and reproduction	144	154	229
25.0	Other services	7,223	7,938	11,798
26.0	Supplies and materials	1,793	1,917	2,849
31.0	Equipment	644	689	1,024
32.0	Lands and structures	541	578	859
41.0	Grants, subsidies, and contributions ...	25,435	29,000	2,300
42.0	Insurance claims and indemnities	6	6	9
44.0	Refunds	104	111	165
99.0	Subtotal direct obligations	53,433	58,617	35,236
99.0	Subtotal, reimbursable obligations ...	5,615	4,800	2,500
ALLOCATION TO THE DEPARTMENT OF INTERIOR				
99.0	Subtotal obligations, allocation accounts	954	883	750
99.9	Total obligations	60,002	64,300	38,486
Obligations are distributed as follows:				
	State and Private Forestry	59,048	63,417	37,736
	National Park Service	238	364	310
	Bureau of Land Management	238	171	145
	U.S. Fish and Wildlife Service	12	30	25
	Bureau of Indian Affairs	466	318	270
	Total	60,002	64,300	38,486

STATE AND PRIVATE FORESTRY

PERSONNEL SUMMARY

Identification code:	1986 actual	1987 est.	1988 est.
12-1105-0-1-302			
Direct:			
Total number of full-time permanent positions.....	423	432	357
Total compensable workyears:			
Full-time equivalent employment	518	532	438
Full-time equivalent of overtime and holiday hours	47	48	40
Average ES salary	\$ 67,823	\$ 69,807	\$ 69,807
Average GS grade	12.28	12.28	12.28
Average GS salary	\$ 33,695	\$ 34,453	\$ 34,706
Average salary of ungraded positions	\$ 21,293	\$ 21,772	\$ 21,932
Reimbursable:			
Total number of full-time permanent positions	14	14	12
Total compensable workyears:			
Full-time equivalent employment	14	14	12
Full-time equivalent of overtime and holiday hours	1	1	1
Average GS grade	13.48	13.48	13.48
Average GS salary	\$ 42,452	\$ 43,407	\$ 43,725

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National Forest System

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u> (Dollars	<u>1988 Estimate</u> in thousands)	<u>Inc.(+) or Dec.(-) from 1987</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Minerals area management ... \$	27,164	26,319	28,092	28,519	+2,200	+427
FTE	619	601	601	601	--	--
Real estate management ... \$	19,978	19,845	21,263	22,443	+2,598	+1,180
FTE	455	441	441	449	+8	+8
Land line location \$	27,399	26,363	27,905	27,383	+1,020	-522
FTE	566	540	540	526	-14	-14
Maintenance of facilities ... \$	14,124	14,735	15,762	16,005	+1,270	+243
FTE	278	280	280	280	--	--
Forest fire protection ... \$	151,669	154,796	166,044	151,616	-3,180	-14,428
FTE	3,999	4,015	4,015	3,578	-437	-437
Fighting forest fires \$	166,652	125,000	125,000	1,000	-124,000	-124,000
FTE	--	--	--	--	--	--
Cooperative law enforcement .. \$	6,659	6,660	6,700	5,696	-964	-1,004
FTE	14	14	14	89	75	75
Forest road maintenance .. \$	61,856	61,770	65,011	65,792	+4,022	+781
FTE	1,151	1,140	1,140	1,140	--	--
Forest trail maintenance .. \$	9,537	11,000	11,952	11,526	+526	-426
FTE	318	337	337	320	-17	-17
Timber sales admin. and mgmt. \$	174,007	184,139	197,848	211,196	+27,057	+13,348
FTE	4,773	4,812	4,812	5,053	+241	+241
Reforestation and stand improvement .. \$	65,128 ^{1/}	58,893	63,861	39,639	-19,254	-24,222
FTE	1,751	1,053	1,053	691	-362	-362

^{1/} The FY 1986 appropriation included an additional \$30 million from Reforestation Trust Fund. This is shown in the Reforestation and Stand Improvement section under National Forest System.

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from 1987</u>	<u>Inc.(+) or Dec.(-) from Base</u>
			(Dollars in thousands)			
Recreation						
use \$	99,017	110,222	117,908	64,289 ^{1/}	-45,933	-53,619
FTE	2,591	2,682	2,682	1,370	-1,312	-1,312
Wildlife and						
fish habitat						
management ... \$	37,087	41,537	44,098	37,924	-3,613	-6,174
FTE	854	889	889	799	-90	-90
Range manage-						
ment \$	26,894	26,799	28,942	26,879	+80	-2,063
FTE	685	679	679	631	-48	-48
Soil, water, and						
air management \$	30,524	33,220	35,180	33,929	+709	-1,251
FTE	655	665	665	646	-19	-19
General						
administration \$	251,229	256,996	272,597	272,581	+15,585	-16
FTE	5,226	5,358	5,358	5,039	-319	-319
Total, NFS \$	1,168,924	1,158,294 ^{2/}	1,228,163	1,016,417	-141,877	-211,746
FTE	23,935	23,506	23,506	21,212	-2,294	-2,294

^{1/} \$52 million is proposed in a new recreation receipt account, Operation and Maintenance of Recreation Facilities.

^{2/} This amount does not reflect the proposed transfer of \$797,000 from State and Private Forestry, \$11,900,000 from Permanent Appropriations--Purchaser Elect, and \$27,986,000 from prior year unobligated balances in Land Acquisition to cover pay and FERS costs in FY 1987.

Authorities

The Act of June 4, 1897, Organic Administration Act of 1897, as amended (16 U.S.C. 473-478, 479-482, 551). Section 24.

Administrative, protection, and management of the National Forests.

(05-96) 12-1106 302 SAGR HAGR

Such sums as appropriated; no expiration date.

P.L. 68-575, The Act of March 3, 1925, as amended (16 U.S.C. 555).

Section 5.

Purchase of land and acceptance of donations of land.

Such sums as necessary, not to exceed \$50,000 per fiscal year; no expiration date.

P.L. 75-210, Title III, The Bankhead-Jones Farm Tenant Act of July 22, 1937, as amended (7 U.S.C. 1010, 1011). Sections 31 and 32.

Land acquisition, exchange, and authorities to correct maladjustments for land utilization purposes.

Such sums as necessary; no expiration date.

P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944 (7 U.S.C. 2250). Section 703.

Erect, alter, and repair buildings necessary to carry out authorized work.

Section 205 (16 U.S.C. 579(a)).

Procure and provide aerial operations and facilities, including equipment and structures.

P.L. 81-348, Act of October 11, 1949 (Anderson-Mansfield Reforestation and Revegetation Act) (16 U.S.C. 581j-k). Sections 1 and 2.

Reforestation and range revegetation.

(05-96) 12-1100 302 SAGR HAGR

Such sums as needed; no expiration date.

P.L. 84-979, The Act of August 3, 1956 (7 U.S.C. 428a). Section 11.

Land or interests in land by purchase, exchange, or otherwise.

Such sums specified by annual appropriation; no expiration date.

P.L. 88-657, Act of October 13, 1964, National Forest Roads and Trails Systems Act (16 U.S.C. 532-538). Sections 1-7.

Construction and maintenance of forest roads and trails.

(05-96) 12-1103 302 SEPW HPWT SENR HIIA

Such sums as appropriated; no expiration date.

P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a). Section 1. Erection and leasing of buildings, structures, and land from non-Federal sources.

Such sums as appropriated; no expiration date.

P.L. 90-543, National Trails System Act, as amended by P.L. 98-11 (16 U.S.C. 1241 et seq.). Section 10.

Construction and maintenance of trails. Assistance to volunteer organizations.

Such sums as appropriated; no expiration date.

P.L. 90-583, Carlson-Foley Act of 1968 (43 U.S.C. 1241-1243). Section 3.

Rangeland management; noxious farm weed control.

Such sums as appropriated; no expiration date.

- P.L. 92-82, Sisk Act of August 10, 1971 (16 U.S.C. 55/a)
Cooperation with States and Political Subdivisions for
reimbursement of State and local law enforcement on
National Forest Lands.
(05-96) 12-1106-302 SAGR HAGR
Such sums as are appropriated; no expiration date.
- P.L. 92-421, Act of September 18, 1972, Supplemental National Forest
Reforestation Fund Act (16 U.S.C. 576c-e).
Reforestation and revegetation of National Forest System lands.
Authorization: Section 1; \$65,000,000 annually.
Expires September 30, 1987.
- P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act,
August 17, 1974, as amended (16 U.S.C. 1601 note). Sections 2-5.
Forest resources planning and evaluation.
(05-96) 12-1106 302 SAGR HAGR
Such sums as appropriated; no expiration date.
- P.L. 94-588, National Forest Management Act of 1976, October 22, 1976
(16 U.S.C. 472(a-i) and 1601)). Sections 1-14.
Amends Forest and Rangeland Renewable Resources Planning Act of
1974.
(05-96) 12-1106 302 SAGR HAGR
Such sums as appropriated; no expiration date.
Reforestation - \$200,000 annually (16 U.S.C. 1601(d)(3)).
- P.L. 95-495, Act of October 21, 1978 (92 Stat. 1649). Sections 5(d),
6(c)(1-2), 6(d)(1-2), 11(f), 18(e), and 19.
Establishes the Boundary Waters Canoe Area Wilderness and Boundary
Waters Canoe Area Mining Protection Area.
Authorization: Section 6(d)(1) \$8,000,000 for resource
management on the Superior National Forest.
Sections 5(d), 11(f), and 18(e)--such sums as necessary.
Section 6(d)(1) expires at end of FY 1990.
- P.L. 96-586, Act of December 23, 1980.
Land acquisitions in the Lake Tahoe Basin. Section 2(h).
Prevent, control, and mitigate water pollution, and manage
National Forest System lands acquired within the Lake Tahoe Basin.
(05-96) 12-1106 SENR HIIA

Authorization is 5 percent of the Land and Water Conservation Fund
appropriation for Lake Tahoe Basin land acquisitions each year.
Expires when all Clark County, Nevada, land specified in the Act
is sold by the U.S. Department of Interior, Bureau of Land
Management.
- P.L. 97-465, Act of January 22, 1983 (16 U.S.C. 521c).
To authorize the conveyance of lands and other purposes.
Land exchange and sales.
(05-96) 12-1106 SENR HAGR
Such sums as necessary, no expiration date.
- P.L. 98-478, Act of October 16, 1984, Federal Timber Contract Payment
Modification Act (16 U.S.C. 619).
Allow buy-out of timber contracts, waive special-use fees for non-
profit permittees, and redetermine Alaska contract rates.
(05-96) 12-1106 302 SENR HAGR
Authorization: Such sums as necessary; no expiration date.
- P.L. 99-570, Anti-Drug Abuse Act of 1986, Title XV, October 27, 1986.
Authorize Secretary of Agriculture to prevent and control drug
abuse on the National Forest System.
(09-96) 12-1106 SAGR HAGR
Authorization: \$10,000,000 annually; no expiration date.

**Appropriation
Summary
Statement**

This appropriation provides funds for the protection, management, and utilization of about one-third of all Federal land in the United States--191 million acres of the National Forest System (NFS) located in 44 States, Puerto Rico, and the Virgin Islands. The National Forest System is a national resource that generates over \$1 billion in receipts and continues to have major environmental and social value for millions of Americans. A significant portion of the receipts for goods and services from these lands is returned under current laws to the States for distribution to counties (around \$274 million estimated for FY 1987).

The following examples typify the importance of NFS lands to the well-being of the American people.

- Wood products. About 20 percent of the Nation's annual softwood sawtimber harvest comes from NFS lands. A continuous supply of softwood sawtimber is essential to produce the lumber and plywood needed to build houses and other construction, as well as other wood products. NFS lands contain over 51 percent of the Nation's standing softwood sawtimber inventory; thus they play a vital role in meeting the Nation's wood product needs in the upcoming decades. Enough wood is sold from NFS lands to build over one million houses annually. It is well within the capacity of the national forests to produce timber on a sustained yield basis in an environmentally sound manner. Reforestation and timber stand improvement activities are carried out to ensure the maintenance of a high level of productivity.

- Coal, oil, gas, and other minerals. About one-fourth of the Nation's potential domestic energy resources are on (or under) NFS lands. These include about 50 billion tons of coal (12 billion of which have potential to be surface-mined) in the national forests in Montana, Utah, and Wyoming. Coal production from NFS lands during FY 1986 was estimated at 21 million tons. Coal production is increasing as existing mines increase production and new mines start producing.

About 28 million acres of NFS lands are under lease for oil, gas, geothermal, and other minerals. Mineral activity on national forests and national grasslands generated receipts of over \$120 million from rents, royalties, sales, and bonus bids in FY 1986 (including receipts deposited directly to the Department of Interior). The Forest Service encourages exploration and development of mineral resources in cooperation with Department of the Interior agencies and with consideration for other resource values.

Over 26,600 operating plans and lease applications were processed or administered in FY 1986.

- Outdoor recreation. The national forests are truly "America's Playground," for each year they provide almost half of all outdoor recreation on Federal lands. In FY 1986, the use of the forests included 226.5 million recreation visitor days. This is equivalent to every American spending 12 hours on the National Forest System. Among the facilities and sites available to them are:

- 99,500 miles of trails, including 4,815 miles of National Scenic Trails and 1,300 miles of National Recreation Trails.

- More than 4,406 campgrounds.

- Many commercial ski resorts and popular cross-country ski areas.

- Twelve national recreation areas and all or part of 30 national wild and scenic rivers.

- Over 32 million acres (about 35 percent) of the National Wilderness Preservation System contained in 339 wilderness areas.

Fees paid for recreation use of the national forests and grasslands were \$30.3 million in FY 1986. The Forest Service is proposing to increase revenue from recreation use so that more of the program cost is offset by receipts.

Tourism is one of the top three industries in 39 States. Thirty-four of these States contain National Forest System land which provides a significant contribution to their tourism industries.

- Hunting, fishing, and nature studies. The national forests and grasslands are favorite places for millions of Americans to hunt and fish. In cooperation with the States, the Forest Service manages and improves wildlife and fish habitat to provide for both commercial and noncommercial uses. The freshwater lakes and streams of the National Forest System provide a bounty of fish, including trout, bass, and salmon. In FY 1986, 15.2 million fish user-days occurred on these lands. (A fish user-day consists of 12 hours.) A commercial salmon catch valued at over \$100 million is harvested annually. Annual salmon sport fishing is valued at \$23 million.

Hunters spend 15.2 million user-days in the field pursuing large game, such as elk, deer, and bighorn sheep; and small game, such as quail, grouse, and waterfowl. Bird watchers, photographers, and others engaging in nature study spend over 1.5 million user-days per year enjoying the wildlife and fish resources.

- Livestock grazing. More than 14,000 ranchers and farmers paid for permits to graze 10.1 million animal unit months on the 105 million acres of grassland, open forests, and other forage-producing areas of the National Forest System in FY 1986. These individuals are highly dependent on NFS lands to complement the livestock ranching operation on their privately owned lands. Without NFS grazing, many of these livestock operations would not be economically sound.

Emphasis is placed on managing the permitted livestock use of 10.1 million animal-unit-months and enhancing water quality and quantity, soil productivity and stability, wildlife habitat, and aesthetics. The Forest Service will continue to provide forage to promote the economic stability of dependent livestock producers and rural communities.

- Soil, water, and air. One of the original purposes for establishing national forests under the Organic Act was to secure favorable conditions of water flow. Much of the Nation's water supply flows from NFS lands located in the headwaters of the major river systems. In the 16 Western States, where the water supply is sometimes critically short and may constrain future growth, about 55 percent of the total annual yield of water is from National Forest System lands.

A healthy watershed condition is critical to continued production of goods and services, including favorable water flows, from National Forest System lands. Watershed condition is a description of hydrologic function and soil productivity. Site-specific practices are used to ensure that desired watershed conditions are maintained or enhanced during management activities.

Soil and water inventories are completed to provide information on the capability of these resources to support management activities. About 5,690,000 acres were inventoried in FY 1986. The Forest Service also conducts programs to improve the productivity of soil and water resources. Over 8,000 acres were improved in FY 1986.

The Forest Service has a dual role in complying with requirements of the Clean Air Act. It must manage the resources in a way that does not degrade air quality below established standards. It is also responsible for protecting air quality related values, particularly in 88 federally designated class I (wilderness) areas, from damage that would result from air pollution. The Forest Service reviewed 38 preconstruction permits in FY 1986.

- Real estate and special uses. A wide variety of real estate activities are associated with managing the National Forest System. Such activities, essential to improving the efficiency of the Agency's land management activities, are:

- Provision for the needs of other ownerships. NFS unit boundaries encompass about 39 million acres of land belonging to private individuals, corporations, or States.

- Land exchange to improve ownership patterns. Land is exchanged at fair market value to improve land ownership patterns. During FY 1986, 133,300 acres of non-Federal land were acquired in exchange for 101,614 acres of Federal land.

- Land line location. Land lines are located to identify accurately legal boundaries between NFS and other ownerships. Accurate boundaries are needed to avoid encroachment. Trespassing onto Federal land increase by about 2,000 cases annually.

- Land purchase. The Forest Service purchases land principally for purposes of watershed protection, timber production, recreation use, wildlife management, and endangered species protection. Donations and the acquisition of partial interests, such as scenic easements, are growing in importance in the National Forest System.

- Transfers and interchanges. Transfer of jurisdiction between Federal agencies is made to improve land ownership patterns, simplify management, reduce costs, and improve service to the public.

- Rights-of-way acquisition. Each year, the National Forest System acquires about 1,000 miles of rights-of-way for access to Federal land. Most of the cases are settled through negotiation. Condemnation procedures are rarely needed.

- Title claims. During past years, an estimated 50,000 title claim cases have resulted from overlapping ownerships between Federal lands. Each year, the Forest Service resolves a portion of these claims cases through sale, interchange of title, or exchange. In FY 1986, 194 cases were resolved using the Small Tracts Act authority (P.L. 97-465). About 18,000 acres are involved in claims arising from early 1900 homesteading activities.

- Land status. Accurate ownership status is essential to efficient management of the resources. Land status is the recordkeeping of the real estate managed by the National Forest System. This includes partial interest, encumbrances, and use. Review of the 1,738 existing mineral withdrawal cases, covering 2,165,000 acres of Federal land, is a significant effort being undertaken in coordination with the Bureau of Land Management during FYs 1985-89.

- Special uses. Special uses of the National Forest System are many and varied. With Federal and other governmental agencies, use is arranged through interagency agreements. For example, military operations are conducted on thousands of acres of NFS land each year. Others use Federal land by special use authorization. Approximately 50,000 nonrecreational special uses are authorized by permit, such as for television antenna sites, private roads, and utility lines. Over 2,000 hydroelectric development projects on or affecting NFS land have been proposed for licensing by the Federal Energy Regulatory Commission in the past several years. Over \$4 million was collected in special land use fees in FY 1986.

- Transportation system and structures. The Forest Service operates and maintains approximately 340,000 miles of roads. In addition, approximately 11,200 buildings, half of which are 40 years old, are maintained. Both the roads and structures are essential to the management, protection, and utilization of the national forests.

Minerals Area Management

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Leasable minerals	\$ 13,463	13,056	13,835	11,435	-2,400
FTE	270	262	262	234	-28
Locatable minerals	\$ 9,163	8,819	9,503	11,407	+1,904
FTE	242	234	234	249	+15
Common variety minerals ...	\$ 2,157	2,708	2,897	2,792	-105
FTE	58	64	64	64	--
Geology	\$ 2,381	1,736	1,857	2,885	+1,028
FTE	49	41	41	54	+13
Total	\$ 27,164	26,319	28,092	28,519	+427
Cases	26,635	22,952	22,952	23,407	+455
FTE	619	601	601	601	--

General

Satisfying the Nation's need for raw materials to support economic growth depends on domestic mineral and fuel production from private and Federal lands. Private industry responds to these production needs and, where National Forest System (NFS) lands are involved, the Forest Service guides and facilitates this activity.

Federal mineral and energy resources are categorized as leasable and locatable minerals, and as common varieties of mineral materials. Depending on the category, the Forest Service evaluates applications or proposals by industry to explore and develop energy and mineral resources on NFS lands. Based on these evaluations, and in cooperation with the Department of the Interior, the Forest Service develops procedures and requirements for mineral activities in coordination with other resource values and uses.

The Forest Service's minerals program also involves the issuance and administration of special use permits (e.g., roads and pipelines) for uses that are part of mineral development projects on NFS lands.

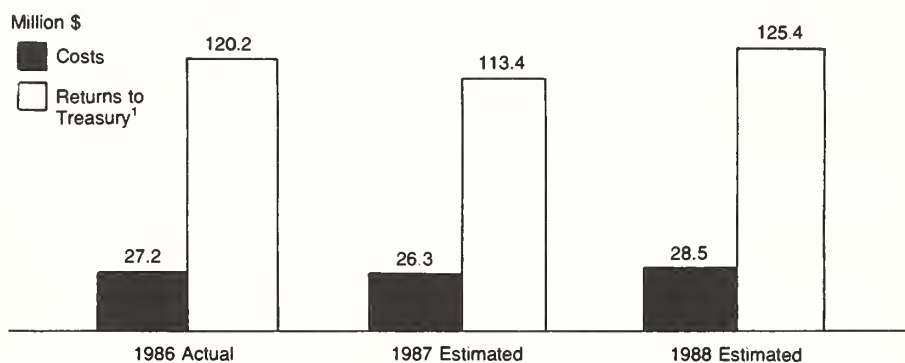
In the Department of the Interior, the Bureau of Land Management, Bureau of Mines, Office of Surface Mining, and Geological Survey cooperate in this program. The Forest Service and Bureau of Land Management cooperate in efforts to streamline preleasing preparation of National Environmental Policy Act documents and to improve consistency in applying mineral lease stipulations to increase efficiency in processing minerals leasing proposals. The two agencies also cooperate in developing procedures and sharing personnel to manage locatable mineral activities, including processing patent applications and examining mining claims. Service to the public and efficient use of available expertise are enhanced by these and other cooperative efforts.

The proposed level of funding provides for processing and administering 23,407 mineral cases. However, the number of new mineral cases in a given year is dependent on many factors, including mineral prices, overall economic conditions, and industrial activity. The uncertainties associated with predicting these factors make it difficult to estimate the volume of future caseloads accurately.

The FY 1986 ending inventory was 2,363 unprocessed cases. As of November 1986, this inventory included 1,055 cases in areas where the Forest Service is precluded from taking action due to areas being considered for wilderness, and restricted by Congress under appropriation acts. At the proposed FY 1988 level of funding, the inventory is expected to be 4,000 to 5,000 unprocessed cases.

Returns to the U.S. Treasury from mineral and energy rents, royalties, sales, and bonus bids on NFS lands exceed 400 percent of the minerals and geology program costs each year.

Minerals and Geology Program Costs and Returns to the Treasury



¹ Includes receipts from NFS land deposited directly to USDI

Geologic information is used to support many Forest Service programs and specific activities, including land and resource management planning, timber-sale layout and road construction, mined-land reclamation, watershed management and protection, recreation development, and other facilities construction. The geology program also provides information for the assessment of mineral resources and for evaluating, managing, and protecting ground water resources and underground storage spaces on NFS lands.



Core drilling exploration in Washington.



Backfilling of old open pit mine in Nevada.



Oil well rig and pad in Idaho.

Leasable Minerals

Objective

To make available the leasable energy and mineral resources from National Forest System lands. To work with the Bureau of Land Management and the Office of Surface Mining to administer the associated exploration, development, production, and reclamation of leasable minerals with consideration for multiple use resource values.

Program description

Leasable minerals include energy resources (oil, gas, geothermal energy, and coal) and other minerals (phosphate, sodium, and potassium), both acquired and public domain, and acquired hardrock minerals (lead, silver, etc.). The leasable minerals program involves:

- Acting on lease applications and related proposals and forwarding recommendations/consents to the Bureau of Land Management with stipulations to facilitate coordination with surface resources.
- Determining terms and conditions to be included in operating plans forwarded to and approved by the Bureau of Land Management.
- Ensuring that mineral exploration, development, production, and reclamation activities comply with applicable laws and regulations.
- Ensuring coordination with surface resources.
- Monitoring activities for compliance with approved operating plan requirements.
- Administering special use permits associated with leasable minerals.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Leasable minerals	\$ 13,835	11,435	-2,400
FTE	262	234	-28

A decrease of \$2,400,000 is proposed from the 1988 base.

The FY 1988 program will accomplish the projected work activities, provide resource coordination, and protect surface resources. The caseload for FY 1988 is expected to be 11,469 cases, 1,353 fewer cases than the planned accomplishment of 12,822 cases in FY 1987. The reduction in cases is directly related to the reduced world price of oil and gas resulting in less exploration activities.

Object class information

Salaries and benefits	-923
Travel	-211
Transportation of things	-67
Rent, communications, and utilities	-452
Other services	-500
Supplies, materials, and equipment	-247
Total	-2,400

Locatable Minerals

Objective

To provide access to locatable minerals to enhance the industrial and economic strength of the United States. To encourage industry proposals for mineral development on public domain lands in the NFS. To develop reasonable and effective measures to protect surface resources and values.

Program description

Locatable minerals are hardrock minerals (gold, silver, lead, zinc, etc.) occurring in the public domain and disposed of by the Federal Government under the U.S. Mining Law of 1872. Anyone may file a claim for the mineral located and obtain necessary operating approvals for development and mining. The locatable minerals program involves:

- Complying with the U.S. Mining Law of 1872 and applicable regulations.
- Ensuring coordination with surface resources.
- Processing operating plans.
- Monitoring mining activities for compliance with approved operating plan requirements.
- Examining validity of mining claims.
- Administering special-use permits associated with operations on mining claims.



Use of a spring tooth harrow to loosen soil in preparation for seeding.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Locatable minerals\$	9,503	11,407	+1,904
FTE	234	249	+15

An increase of \$1,904,000 is proposed from the 1988 base.

The FY 1988 program will provide for processing and administering an estimated 7,952 locatable minerals cases, 1,265 more cases than the planned accomplishment of 6,687 in FY 1987.

The proposed program will facilitate the search for and production of locatable minerals, including many precious metals and minerals of strategic importance to the United States.

The FY 1988 program provides for resource coordination and protection of surface resources.

**Object class
information**

Salaries and benefits	+509
Travel	+75
Transportation of things	+65
Rent, communications, and utilities	+364
Other services	+606
Supplies, materials, and equipment	+285
Total	+1,904

Common Variety

Objective

To determine the availability of mineral materials. To provide for their extraction and use consistent with sound land and resource management practices.

Program description

Mineral materials include common varieties of gravel, sand, stone, and materials used in the construction of highways and other facilities. These minerals on NFS lands are sold outright, granted free of charge to qualified users, or used to build and maintain Forest Service road systems and other facilities. The mineral materials program involves:

- Complying with laws and regulations.
- Administering sales and free-use disposals.
- Inventorying the mineral materials resource.
- Conducting appraisals.
- Developing and processing operating plans.
- Ensuring coordination with surface resources.
- Monitoring operations, including reclamation.
- Administering special-use permits associated with disposal of mineral materials.

Decrease . for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Common variety minerals .. \$	2,897	2,792	-105
FTE	64	64	--

A decrease of \$105,000 is proposed from the 1988 base.

The FY 1988 program will provide for the activities associated with management of mineral materials, including common varieties of gravel, sand, and stone. These activities include resource inventories and appraisals, disposal administration, operating plan processing and review, resource coordination, and protection of surface resources.

An estimated 3,986 cases will be processed in FY 1988, an increase of 543 cases over planned accomplishment of 3,443 cases in FY 1987. Due to increased efficiency, the activity level is expected to be higher with slightly lower unit costs.

Object class information

Travel	-12
Rent, communications, and utilities	-16
Other services	-60
Supplies, materials, and equipment	-17
Total	-105

Geology Program

Objective To identify and evaluate geologic conditions and hazards that affect the safety and cost effectiveness of Forest Service activities. To provide and interpret geologic and minerals resource information for land management planning, environmental protection, mined-land reclamation, and other agency or State cooperative management programs.

Program description This program provides geologic information and support services for all Forest Service land and resource management activities. These services include:

- Providing geologic support personnel to gather, interpret, and present information about geologic conditions and mineral resources for resource evaluation and land management planning.

- Gathering, interpreting, and reporting geologic factors that affect the design, construction, and maintenance of Forest Service facilities. This includes such work as landslide investigations, foundation studies, and investigations to locate construction materials.

- Gathering and interpreting geologic information needed to develop and protect such resources as ground water, underground spaces, and minerals.

Increase for 1988		1988 Base	1988 Estimate	Increase
		(Dollars in thousands)		
	Geology	\$ 1,857	2,885	+1,028
	FTE	41	54	+13

An increase of \$1,028,000 is proposed from the 1988 base.

The FY 1988 program will facilitate completion of necessary geological work activities and enable the Forest Service to conduct high priority technical geological evaluations, including support for the 11.1 BBF timber sale program. Assessments include landslide stability studies and subsurface investigations of rock material and water where there is a relatively high risk to safety, efficiency, and economy in the location and construction of facilities. Mineral surveys will be done in support of high-priority land management planning activities.

The program level includes support to timber, land management planning, and other resources. This work is essential for the protection of surface resources while facilitating the development of timber and mineral commodities.

Object class information	Salaries and benefits	+454
	Travel	+87
	Transportation of things	+28
	Rent, communications, and utilities	+79
	Other services	+289
	Supplies, materials, and equipment	+91
	Total	+1,028

Real Estate Management

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
	(Dollars in thousands)				
Land exchange and adjustment	\$ 5,202	5,102	5,478	5,414	-64
FTE	121	117	117	117	--
Land classification, status, and planning	\$ 2,079	1,637	1,745	2,478	+733
FTE	43	33	33	37	+4
Special uses	\$ 7,187	7,357	7,974	9,242	+1,268
FTE	197	197	197	207	+10
Geometronics	\$ 5,510	5,749	6,066	5,309	-757
FTE	94	94	94	88	-6
Total	\$ 19,978	19,845	21,263	22,443	+1,180
FTE	455	441	441	449	+8

General

This program provides for efficient real estate management of National Forest System (NFS) lands while protecting the resources and securing compliance with applicable air and water quality standards. Activities include land exchange and adjustment, land classification and status, title claims, landownership planning, special uses, and geometronics or base series mapping.

Land Exchange and Adjustment

Objective

To improve cost effectiveness of resource management in the NFS by improving the landownership patterns, thus reducing management costs and facilitating development of adjacent non-Federal lands.

Program description

The land exchange program is a way to improve landownership patterns with a minimal impact on the Federal budget. Land exchange results in more efficient landownership patterns, thus reducing administrative costs of both Federal and non-Federal lands. Cost savings occur through more efficient resource administration and road management; a reduced need for locating, posting, and maintaining property boundaries; and resolution of claims. Consolidation reduces the need to purchase land to meet specific management needs.

Land exchanges benefit the private sector and local governments by facilitating the development and expansion of communities and businesses on lands that are better suited for other than Federal uses. All exchanges are made with willing owners on an equal fair-market value basis.

In the western States, many land exchanges involving large acreages have occurred with State and local governments, railroad, timber and mining companies, and ranchers. The properties often involve alternate "checkerboard" landownership patterns resulting from 100-year-old land grants. Exchanges are a means of solving problems caused by fragmented ownership. Many exchanges assist local communities through exchanging isolated tracts of non-Federal land for Federal land adjacent to expanding communities. Recent Wilderness Acts include provisions directing acquisition of non-Federal land by exchange.

In the past 3 years, 488 exchanges were approved. As a result, 436,120 non-Federal acres have been acquired in exchange for 292,635 acres of Federal land, with a value of over \$314.3 million.

In FY 1986, 183 exchanges (133,300 acres) reduced NFS boundaries by 1,807 miles, representing a savings of \$10 million in land line location costs. Such savings have amounted to \$28.5 million over the past 3 years. Additional savings result from the reduced need for rights-of-way, reduced special-use administration, resolution of trespasses, and other factors related to a more efficient landownership pattern.

Reducing the miles of Federal property lines lessens the costs of property line location and maintenance and the risk of trespass.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Land exchange and adjustment	\$ 5,478	5,414	-64
FTE	117	117	--

A decrease of \$64,000 is proposed from the 1988 base.

This program level will allow a continuing active exchange program aimed at reducing administrative costs for management of the National Forest System.

Emphasis will be on large acreage exchanges that will significantly reduce administrative costs in future years.

A total of 66,180 acres will be exchanged and/or adjusted in FY 1988, 820 more acres than the 65,360 acres in FY 1987. This represents 3 percent of the 2,020,000 acres currently involved in active exchanges or identified as suitable and available for exchange.

In FY 1988, we anticipate the completion of two land exchange cases involving lands administered by the Bureau of Land Management (BLM) for lands and/or interests in land to be added to the National Forest System. One case is at the Mount St. Helens National Monument and involves exchanging 48,000 acres of BLM-administered mineral rights, with no known mineral potential, for 42,000 acres of privately-owned mineral rights within the monument. The other case involves 172 acres of BLM-administered land to be used to acquire lands within a wilderness area in the Wenatchee National Forest in Washington. Both of these cases have the concurrence of the BLM.

One of the most significant savings is in reduction of miles of Federal property line, thereby lessening the cost of property line location and maintenance, and the risk of trespass. Completion of this recommended program for FY 1988 could result in land line survey cost savings of more than \$5.5 million.

**Object class
information**

Travel	-7
Rent, communications, and utilities	-16
Other services	-26
Supplies, materials, and equipment	-4
Land and structures	-11
Total	-64

Land Classification, Status, and Planning

Objective

To plan adjustments of landownership needed for efficient resource management. To maintain landownership title records to ensure proper administration of lands subject to reservations, outstanding rights, mineral withdrawals, other conditions of title, and laws that direct or affect land management. To provide an automated retrieval system of land title information. To resolve title disputes.

Program description

Of the 191 million acres of NFS land, 28 million acres were acquired and 163 million acres were reserved from the public domain. These lands, assembled over many years, consist of thousands of individual tracts, each having an individual ownership title file. This record of ownership information must be actively maintained in order to guide resource management as to title restrictions, reservations, other conditions of title, and legislative direction in over 500 laws that affect management of NFS land.

Accurate, current ownership records must be readily available for resource management. Precise records are essential for such situations as the conveyance of approximately 2 million acres of NFS lands in Alaska to other public and private ownerships. By 1990, private ownership of millions of acres of reserved mineral rights will expire and ownership will pass to the United States.

Over 50,000 title claim cases have resulted from overlapping ownerships between Federal lands and the 39 million acres of non-Federal lands within the NFS boundaries. In FY 1986, 194 cases were resolved using the Small Tracts Act authority. About 18,000 acres are involved in claims arising from homesteading activities in the early 1900s. Unresolved title claim cases are increasing at a rate of about 500 cases per year.

Resolution of title claims protects the capital investment in NFS lands. Planning for landownership adjustments in areas with intermingled ownership on scattered land units results in more efficient management.

Each year, the Forest Service in a joint effort with the Bureau of Land Management reviews 20 percent of the 2,165,000 acres of NFS lands withdrawn from mineral entry. This project, to be completed in 1989, results in revocation of unnecessary or obsolete withdrawal orders, as mandated by the Federal Land Policy and Management Act of 1976 (P.L. 94-579), and will be completed in 1989.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Land classification, status, and planning ... \$	1,745	2,478	+733
FTE	33	37	+4

An increase of \$733,000 is proposed from the 1988 base.

The proposed program will allow continuation of the withdrawal review program at the level required for completion in 1989, increased resolution of title claim cases short of litigation, maintenance of basic land status records, and progress on conversion to the automated status recordkeeping system. There will be no increase in the number of title claim cases solved through litigation.

**Object class
information**

Salaries and benefits	+139
Travel	+10
Transportation of things	+17
Rent, communications, and utilities	+114
Printing and reproduction	+11
Other services	+369
Supplies, materials, and equipment	+73
Total	+733

Special Uses (Nonrecreational)

Objective

To authorize the use of NFS lands by Federal, State, and local agencies; private industry, including utilities; and individuals. To facilitate the development of hydroelectric power on NFS lands by developing mandatory terms and conditions for licensing projects.

Program description

The workload for the program depends on the number of external applications received for use of NFS lands. (Authorizations for use are in 13 specific Acts of Congress listed in 36 C.F.R. 251.53.) Processing of applications involves preparation of environmental reports, field examination of proposed sites, draft of appropriate permit terms and conditions, and determination of fees to be charged. Easements are issued for such uses as utility and road rights-of-way.

Once a permit or easement is issued, inspection and monitoring ensure that its terms are met. Periodic evaluations are required to ensure fees are appropriate.

Approximately \$4.8 million was collected in land use fees in FY 1986. About 50,000 nonrecreational use permits are in force, over 10,000 of which are for utility rights-of-way.

In FY 1988, 5,600 applications are expected, most of which will be energy related. Processing and administering special-use applications for mineral activities have been funded under the minerals program since FY 1983.

A major workload is the processing of hydroelectric development proposals in the national forests. As a result of a 1984 Supreme Court decision, the Forest Service is now required to develop mandatory terms and conditions for project licensing. The review of hydroelectric development proposals and administration of licensed projects will be funded in part from benefiting funds and activities.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Special uses	\$ 7,974	9,242	+1,268
FTE	197	207	+10

An increase of \$1,268,000 is proposed from the 1988 base.

Of the 50,000 nonrecreational use permits in force, the FY 1988 program will allow for the administration of 31,000 permits. The remaining 19,000 permits are those that require a minimum degree of administration, including cases having little or no environmental or public health and safety impacts.

About 4,300 of the expected 5,600 special use applications will be processed, augmented by cost collection agreements with applicants and permit holders to provide support for processing applications and monitoring of construction.

The fee schedule for linear rights-of-way published in the Federal Register on December 5, 1986, will be implemented for those permits that provide for a fee adjustment in FY 1988. Work will continue on determining and implementing fair market value rental fees for electronic sites and other uses.

Fees will be reviewed and adjusted to market value on about 9,000 permits. Emphasis will continue to be given to establishing and implementing fee schedules for broader geographic areas in order to streamline the process for fee reviews. This should result in increased efficiency and more uniformity in fees charged for similar uses.

**Object class
information**

Salaries and benefits	+318
Travel	+60
Transportation of things	+48
Rent, communications, and utilities	+347
Other services	+360
Supplies, materials, and equipment	+135
Total	+1,268

Geometronics

Objective

To provide essential maps and related products.

Program description

The geometronics program produces base series maps to support resource management needs. There are two standard base series map products--primary and secondary. Revision schedules for both series vary from 7 to 10 years.

Primary base series maps are 7½-minute quadrangle maps at 1:24,000 scale (2.64" = 1 mile). These are the principal work maps for field personnel and the base for inventory and display of resource and other thematic information.

Secondary base series maps are 1:126,720 scale (½" = 1 mile), constructed to cover entire forests or major divisions of a forest. The main use of this series is for sales to forest visitors under a national map sales program.

The Forest Service's mapping program exists to support NFS management. As such, the program is functional and directed at displaying resources, facilities, and management data on existing standard cartographic bases.

Map production has been centralized at the Geometronics Service Center (GSC) in Salt Lake City, Utah, to produce the thematic layers required by all disciplines (such as transportation systems, land status, and administrative sites).

Regional field units provide support in aerial photography, field editing, and publication. They produce special resource thematic maps according to local staff needs.

The program also includes developmental work to increase efficiency in the mapping process. Examples include:

- Software development to incorporate automated mapping procedures into the base series program and to generate special purpose maps from standard data sets.

- Development of a data base to catalog GSC-generated data for agency use.

- Software development to utilize other agency digital data to support the mapping program. Orthophotos are rectified aerial photos to remove scale distortions and show correct distances.

- Development of an automated digitizing system to collect digital terrain data to support the orthophoto program.

The Forest Service cooperates with other Federal agencies in various mapping and charting activities. The Federal Interagency Coordinating Committee on Digital Cartography is charged with coordinating digital cartographic activities within Federal agencies to avoid duplication and waste. The objective is to develop and adopt, for use by all Federal agencies, common standards of content, format, and accuracy for digital cartographic base data to increase their interchangeability and potential for future use.

Current cooperative efforts include:

- Base series mapping program. The Forest Service uses Geological Survey 7½ minute quadrangles for a more current map base to display thematic information. FY 1987 cost-share is approximately \$192,000 for the Geological Survey to revise 192 quadrangles.

- National high altitude photography program. The Forest Service has been active in this program since it began in FY 1979. The FY 1987 contribution to this program is \$250,000. The program provides coverage of NFS lands on a 6-year cycle. This photography is a valuable tool for photointerpretation of resource information, revision of base series maps, and generation of orthophotos for displaying thematic information.

- Digital elevation model (DEM) program. The Forest Service has adopted the DEM as its standard digital terrain file. Because this is a Geological Survey standard file, it allows for the exchange of DEM data through an interagency agreement. The agreement will reduce the cost of completing DEM coverage over NFS lands by 35 percent. An annual exchange of 700 quadrangles of DEM data is scheduled for FY 1987 and subsequent years.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Geometronics	\$ 6,066	5,309	-757
FTE	94	88	-6

A decrease of \$757,000 is proposed from the 1988 base.

This decrease will reduce both primary and secondary map production by approximately 12 percent. Annual primary map production will drop from 1,345 to 1,180. Annual secondary map production will drop from 35 to 30.

The effect of this decrease will be an increase in the time between map updates and revisions. Current map revision schedules, that now vary from 7 to 10 years, will increase to between 8 and 11 years.

**Object class
information**

Salaries and benefits	-181
Travel	-25
Rent, communications, and utilities	-139
Other services	-238
Supplies, materials, and equipment	-174
Total	-757

Land Line Location

	1986 <u>Actual</u>	1987 Approp. Enacted <u>to Date</u>	1988 <u>Base</u> (Dollars in thousands)	1988 Estimate	Inc.(+) or Dec.(-) <u>from Base</u>
Land line location	\$ 27,399	26,363	27,905	27,383	-522
Miles	4,828	4,717	4,717	4,050	-667
FTE	566	540	540	526	-14

Objective

To locate, mark, post, and maintain property lines between National Forest System (NFS) land and other property before instituting resource management activities.

Program description

Proper location of Forest Service property lines is a prerequisite to construction and resource management activities adjacent to property owned by others. This program identifies these legal property boundaries.

Where property boundaries are not identified, resource management activities cannot proceed. For example, a timber sale cannot proceed because of the risk of cutting non-Federal timber. Encroachment by private landowners adjacent to NFS lands occurs at a rate in excess of two cases per mile where property lines have not been marked.

The program has three primary activities: initial location, marking, and posting of boundary lines; reestablishment of boundaries lost in the absence of land line maintenance; and land line maintenance.

In a limited number of cases, where costs of needed land line location surveys would exceed the purchase costs of specified inholding tracts, the Chief of the Forest Service or a delegated representative may approve the purchase, from willing sellers, of such inholdings with funds from the land line program. Boundaries reduced through such acquisitions are counted as though surveyed.

Some surveys of NFS lands are accomplished by the Bureau of Land Management (BLM) and reimbursed to BLM under an interagency agreement. In recent years, such reimbursements have averaged over \$1.5 million annually.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Land line location \$	27,905	27,383	-522
FTE	540	526	-14

A decrease of \$522,000 is proposed from the 1988 base.

This funding level will provide for accomplishment of about 4,050 miles of land line location. The proposed funding level is necessary to produce 11.1 BBF of timber sales, maintain mineral outputs consistent with the past several years, resolve title claims, and meet high priority land line maintenance needs. Most of these lines involve more difficult terrain and fraudulent surveys of deteriorated corner evidence, which contribute to increasing unit costs.

**Object class
information**

Salaries and benefits	-364
Travel	-8
Rent, communications, and utilities	-12
Other services	-111
Supplies, materials, and equipment	-27
Total	-522

Maintenance of Facilities

	1986 Actual	1987 Approp. Enacted to Date	1988 Base (Dollars in thousands)	1988 Estimate (thousands)	Inc.(+) or Dec.(-) from Base
Maintenance of facilities	\$ 14,124	14,735	15,762	16,005	+243
FTE	278	280	280	280	--

Objective To maintain and make minor improvements in facilities used for fire and general administrative purposes.

Program description Fire and general administrative facilities support National Forest System (NFS) activities. Facility types include administrative sites, offices, service and general purpose storage buildings, and associated water, waste water, and electrical systems. This program also maintains airports, heliports, fire lookouts, and fire management facilities. Employee quarters are maintained from a permanent appropriation, Operation and Maintenance of Quarters.

In managing NFS lands, the Forest Service uses about 11,200 permanent buildings, encompassing 12.8 million square feet. These buildings are primarily at ranger district and work center locations. About 46 percent of these buildings were constructed before 1940, 37 percent between 1945 and 1965, and the remaining 17 percent since 1965. Most of these facilities were designed and constructed with a structural and functional life expectancy of 30 to 35 years. Maintenance, minor renovation, and repair costs have increased with the age and increased service demanded of these facilities. There is an extensive maintenance backlog.

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Maintenance of facilities ..	\$ 15,762	16,005	+243
FTE	280	280	--

An increase of \$243,000 is proposed from the 1988 base.

This program will provide for high-priority maintenance and minor improvements for about 11,200 buildings used for fire management and general administrative purposes, and their associated utility systems.

This program will continue to identify and abate the health hazards to facility occupants from asbestos-containing materials and radon gas. The proposed increase will fund additional recurring maintenance. The maintenance backlog will continue to increase.

Object class information	Transportation of things	+11
	Rent, communications, and utilities	+27
	Other services	+111
	Supplies, materials, and utilities	+94
	Total	+243

Forest Fire Protection

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Fire presuppression	\$ 138,192	143,001	153,734	143,845	-9,889
FTE	3,803	3,833	3,833	3,468	-365
Fuels management	\$ 13,477	11,795	12,310	7,771	-4,539
FTE	196	182	182	110	-72
Acres	320,985	286,000	286,000	275,000	-11,000
Total	\$ 151,669	154,796	166,044	151,616	-14,428
FTE	3,999	4,015	4,015	3,578	-437

General

The forest fire protection (FFP) program protects life, property, and natural resources on the 191 million acres of National Forest System (NFS) lands. An additional 20 million acres of adjacent State and private lands are also protected through fee or reciprocal protection agreements.

The FFP program is a responsive and cost effective program of wildfire presuppression and fuels management activity, commensurate with the threat to life and property, public values, and management objectives. Within the overall FFP program, there are two components, fire presuppression and fuels management.

The total cost of fire protection on NFS lands is the sum of FFP and fighting forest fires (FFF) expenditures, plus the net resource value change (NRVC; damage less benefits) as a result of wildfires. FFF expenditures are discussed in a later section.

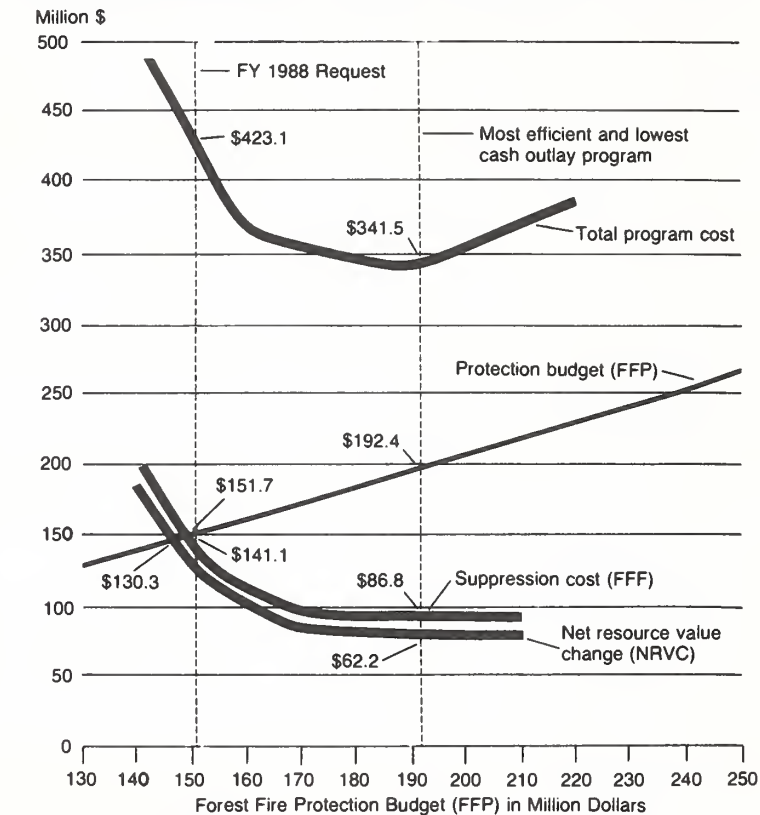
National Fire Management Analysis System

The national fire management analysis system is used to identify the most economically efficient fire protection program. Basically, it exhibits fire fighting costs and changes in resource values that are likely to occur at various funding levels. The analysis can also be used to identify the most efficient program composition at any given funding level. The analysis is based on historical data and economic efficiency. In FY 1985, the analysis model was calculated and validated against more than 5 years of data based on actual experience.

The most efficient program is specified by the lowest sum of forest fire protection (FFP), fighting forest fires (FFF), and net resource value change (NRVC). The estimates for expected FFF costs and NRVC in alternative FFP budgets are considered in developing the proposed fire management program under a constrained total budget.

The following chart illustrates the relationship among FFP, FFF, and NRVC. The upper curve is the total cost of the program; its lowest point identifies the most efficient program budget level. The lowest cash outlay is that point where the sum of FFP plus FFF is minimized, which by coincidence is also the most efficient point. Net resource losses are not included in the cash outlay formula. All data are in FY 1988 constant dollars.

Relationship of Forest Fire Protection, Fighting Forest Fires, and Net Resources Value Changes — FY 1988



The analysis system estimates the expected annual average FFP and NRVC for a given FFP budget based on that budget being held constant over a period of about 10 years. Since the actual severity of the fire season varies, the FFP and NRVC experienced in a particular year are generally higher or lower than the predicted average. The most efficient FFP budget identified by the analysis is one that will result in the lowest program cost over time.

A higher program budget, while reducing both FFP costs and fire consequences on resources (net resource value change--NRVC) in both mild and severe fire seasons, will not offset the increased budget cost over time.

Similarly, a reduced program will result in increased average FFP and NRVC costs (over the efficient program). While a lower budget may produce savings over the efficient program if the year in which it is implemented is below normal in severity, increased FFP costs and resource losses will result if that year is near or above normal in severity.

Since the severity of an upcoming fire season cannot yet be predicted with any reasonable certainty, it is not possible for the model to predict the exact year a reduced program would be appropriate as a cost-saving measure.

Fire Presuppression

Objective To ensure an appropriate level of protection from damage by wildfire to achieve land and resource management goals and objectives and fire management direction.

Program description Fire presuppression activities provide the Forest Service with the capability to prevent or take prompt, effective initial suppression action on wildfires to meet land and resource management objectives. The Forest Service also assists other Federal agencies and States through training programs, planning assistance, sharing joint use equipment contracts, and by operating interagency fire coordination centers.

Presuppression encompasses everything from discovering a fire to initiating action on that fire. It provides recruiting, organizing, training, and equipping firefighters for both initial action and reinforcement.

Decrease for 1988	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Fire presuppression ... \$	153,734	143,845	-9,889
FTE	3,833	3,468	-365

A decrease of \$9,889,000 is proposed from the 1988 base.

Presuppression emphasis will be on activities with higher benefit-cost ratios. These activities include critical initial attack forces, selected deployment, high-priority prepositioning, rapid mobilization of national shared forces, increased interagency coordination, and emergency funding of critically needed firefighting resources.

Prevention and early detection in high resource value areas will reduce the number of the most potentially damaging fire starts, limiting fire size, and reducing resource losses.

Object class information	Salaries and benefits	-9,215
	Travel	-39
	Transportation of things	-13
	Rent, communications, and utilities	-90
	Other services	-372
	Supplies, materials, and equipment	-160
	Total	-9,889

Fuels Management

Objective

To minimize the potential for large, destructive wildfires, where cost-effective, by reducing the volume of hazardous forest and rangeland fuels.

Program description

This activity includes support and planning for fuels activities, inventory of fuel hazards, analysis of alternatives for treating these hazards, and treatment. Treatment includes yarding and stockpiling woody materials for increased utilization, hand or mechanically manipulating fuels to a less flammable and obstructing condition, and reducing fuel volume by removal or prescribed fire.

Improved protection of natural resources is the major benefit. Other benefits include increased utilization of woody material for fiber and heat, improved recreation opportunity (public access, visual resources, etc.), increased grazing opportunities, improved wildlife habitat, increased water yields, and improved sites for reforestation.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Fuels management	\$ 12,310	7,771	-4,539
FTE	182	110	-72

A decrease of \$4,539,000 is proposed from the 1988 base.

This program level will permit completion of higher priority fuels treatment projects. The FY 1988 program will allow treatment of 275,000 acres, 11,000 acres fewer than in FY 1987.

Object class information

Salaries and benefits	-2,135
Travel	-200
Transportation of things	-45
Rent, communications, and utilities	-334
Printing and reproduction	-65
Other services	-1,162
Supplies, materials, and equipment	-598
Total	-4,539

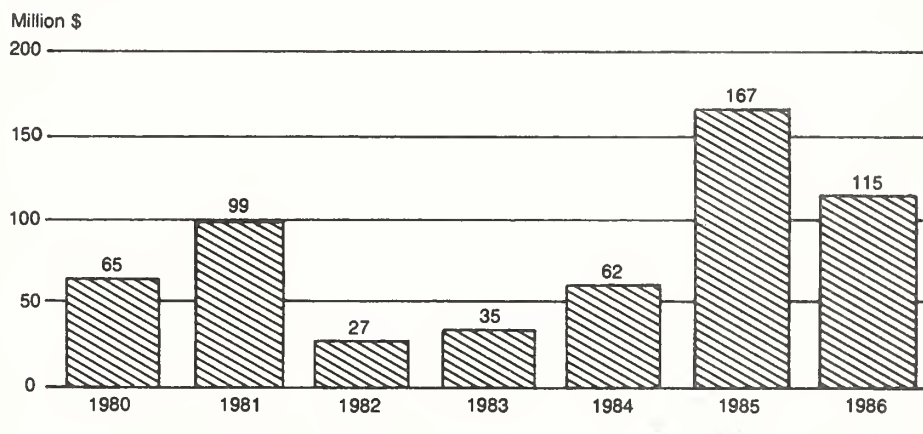
Fighting Forest Fires

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Fighting forest fires	\$ 166,652	125,000	125,000	1,000	-124,000
FTE	--	--	--	--	--

Objective To provide partial funding for costs of fighting forest fires.

Program description This program provides most of the direct expenses for fighting wildfires on or threatening NFS lands and for rehabilitating burned over NFS lands. It also may be used for fire suppression when forecasted and actual burning conditions exceed a nationally determined acceptable level of risk. These funds are used only to the extent necessary under emergency conditions.

National Fighting Forest Fire (FFF) Expenditures



The cost of fire protection on NFS lands is the sum of forest fire protection, fighting forest fires, and net resource value change as a result of wildfires costs above those budgeted will require supplemental funding and/or reprogramming, as in the past.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Fighting Forest Fires . \$	125,000	1,000	-124,000
FTE	--	--	--

A decrease of \$124,000,000 is proposed from the 1988 base.

The Forest Service traditionally requests an appropriation of \$1,000,000 for fighting forest fires, which is supplemented when actual costs are known. In FY 1987, Congress included \$124 million in the initial appropriation, negating the need for a supplemental appropriation to cover FY 1986 FFF expenses.

Total costs vary from year to year depending on the level of presuppression funding and the severity of the fire season.

**Object class
information**

Other services	-124,000
Total	-124,000

Cooperative Law Enforcement

	1986 <u>Actual</u>	1987 Approp. Enacted to Date	1988 <u>Base</u>	1988 <u>Estimate</u>	Inc.(+) or Dec.(-) <u>from Base</u>
	(Dollars in thousands)				
Cooperative law enforcement	\$ 6,659	6,660	6,700	5,696	-1,004
FTE	14	14	14	89	+75

Objective

To cooperate with law enforcement agencies of the States and their subdivisions to remedy situations involving vandalism, destruction, theft of personal property, cannabis eradication, and assaults against visitors on NFS lands.

To protect NFS resources, operations, and Forest visitors from danger associated with illicit cultivation, manufacture, or distribution of cannabis or other controlled substances on NFS lands.

Program description

The cooperative program reimburses State and local law enforcement agencies for extraordinary expenses associated with protecting the public and their property on the national forests.

In many cases, the number of visitors to the national forests equals or greatly exceeds the resident population of the counties. Since this visitor use is seasonal and often occurs in geographically remote areas, additional costs are associated with protecting the visiting public.

The NFS drug control initiative as authorized by P.L. 99-570, Anti-Drug Abuse Act of 1986, Title XV, October 27, 1986, provides for the detection of cannabis being cultivated within the boundaries of the National Forest System and also provides for the apprehension and prosecution of persons involved in cultivation operations. Funding for this initiative is expended internally within the Forest Service and is not for reimbursement to State and local law enforcement agencies.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Cooperative program .. \$	6,700	2,489	-4,211
FTE	14	14	--
NFS Drug Control \$	--	3,207	+3,207
FTE	--	75	+75
Total ... \$	6,700	5,696	-1,004
FTE	14	89	+75

A decrease of \$1,004,000 is proposed from the 1988 base.

This program level will provide cooperative enforcement efforts to State and local law enforcement agencies for selected high level visitor-use areas and areas with other high priority issues and impacts. The cooperative program level provides \$2,000,000 for cannabis eradication on NFS lands.

Drug control funds will be used to detect and investigate illicit cannabis cultivation as well as apprehend and prosecute major commercial growers. These funds will enhance the capabilities of those regions where high volume cannabis cultivation and associated violence is occurring on NFS lands.

**Object class
information**

Salary and benefits	+2,375
Travel	+225
Other services	-3,644
Supplies, materials, and equipment	+40
Total	-1,004

Forest Road Maintenance

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Forest road maintenance	\$ 61,856	61,770	65,011	65,792	+781
Miles (thousands)	340,100	339,440	339,440	344,200	+4,760
FTE	1,151	1,140	1,140	1,140	--

Objective

To support all National Forest System (NFS) resource programs cost effectively, including maintaining roads to serve intended management purposes; protecting the investment, environment, and adjacent resources; ensuring user safety; maintaining applicable air and water quality standards; and providing for user economy and convenience.

Program description

This program manages use of the transportation system to meet NFS resource management objectives cost effectively, and maintains the system in a condition suitable for intended uses.

The forest development road system at the beginning of FY 1987 contained about 339,440 miles of various standards and types of roads. About 90 percent of this mileage is single lane, and 75 percent of it is unsurfaced (no gravel or pavement).

The forest development road system provides essential access for using and managing NFS lands including:

- Forest fire suppression
- Removal of energy-producing resources such as oil, natural gas, coal, geothermal steam, and uranium
- Control of forest insects and disease
- Timber harvest
- Reforestation and timber stand improvement
- Forest recreation activities such as camping, hunting, fishing, hiking, skiing, snowmobiling, and driving for pleasure
- Range management

Specific activities funded by the road maintenance program include:

1. Transportation system management.

- Traffic studies--collecting and analyzing data on the use and physical characteristics of the road system.
- Jurisdiction--determining and resolving road jurisdiction and responsibility with States, counties, other Federal agencies, and private landowners.
- Cost sharing program--managing rights-of-way and administering construction and use agreements where it is beneficial for private landowners and the Forest Service to jointly develop and maintain a common road system, thereby reducing total costs to both parties.

- Regulations and controls--determining the need for and developing and implementing traffic control (vehicle size, type of use, road closures, and use permits) where necessary to prevent damage to the road or resources; maintaining use within capacity limits; and ensuring that commercial users maintain roads commensurate with their use. Roads are closed to traffic to achieve specific management objectives, prevent damage to resources, reduce construction and maintenance expenditures, or control use when road damage would occur.

- Enforcement--cooperating with local authorities to enforce Federal laws, rules, and regulations on the forest road system. This includes road closures, load limits, etc.

2. Transportation system maintenance.

- Maintenance planning--inspecting roads and bridges to determine maintenance needs, developing a plan to finance and accomplish work, and coordinating maintenance activities of purchasers and cooperators.

- Maintenance work--performing on-the-ground work, such as roadside brushing, surface grading, culvert cleaning, replacing worn out surfaces, repairing bridges and other structures, and replacing damaged signs needed to maintain safe traffic flow.

Responsibility for Road Maintenance

Road system management and maintenance is accomplished through Federal appropriations (about 48 percent) and as a responsibility of purchasers of government timber (about 48 percent) and other commercial users, such as those involved in mining, timber hauling, etc. (about 4 percent).

Timber purchasers and other commercial users are responsible for maintaining roads in a satisfactory condition for their use requirements.

The Forest Service is responsible for all additional maintenance attributed to administrative and noncommercial use. Nearly 83 percent of all traffic use on the forest development road system is by the general public, primarily for recreational purposes. About 225 million visitor-days of recreation use on the National Forests each year depend on access provided by the forest development road system. Road maintenance to support this use is the responsibility of the Forest Service and is funded through this program.

Much required road maintenance work does not result from road use. This work includes cleaning culverts, clearing roadside brush, removing slides, maintaining traffic control devices, and painting bridges. These maintenance costs are shared by the Forest Service and the commercial users when the roads are used for commercial hauling. The Forest Service must assume responsibility for all these costs when the roads are not in commercial use.

Some needed road maintenance work has been deferred because of past funding levels. This deferred maintenance may not result in reduced road conditions in the short term, but will likely increase road reconstruction costs if continued in the long term.

Land management objectives do not necessitate a system where all roads are open to all vehicles at all times. Road closures are used as a tool in an integrated system of land management, in which land and resource management plans guide where roads should be closed to protect resource values or achieve other objectives. When open, the road provides vehicular access for resource production or use. Once that activity is completed, road closures protect other resources such as soil, water, or wildlife.

To reduce maintenance costs, use of some roads is restricted and some roads are permitted to deteriorate. Road closures do not always mean significantly lower maintenance costs, however, since installing gates or barriers and enforcing closures is a very costly activity.

Though roads may be closed to vehicular use, they are available for hiking, horseback riding, and in many cases, off-road vehicle recreation use.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Forest road maintenance	\$ 65,011	65,792	+781
FTE	1,140	1,140	--

An increase of \$781,000 is proposed from the 1988 base.

The Forest road system is estimated to be 344,200 miles in FY 1988. This represents a net increase of 1.4 percent from the 1987 estimate.

This funding level will result in the system being maintained at the following maintenance levels:

	<u>1986 Miles Actual</u>	<u>1987 Miles Estimated</u>	<u>1988 Miles Estimated</u>
Closed	56,100	57,740	56,800
Maintained only for high-clearance vehicles ..	177,500	176,500	179,700
Maintained for passenger cars	<u>106,500</u>	<u>105,200</u>	<u>107,700</u>
Total	340,100	339,440	344,200

The road system will be maintained to protect resources, provide user safety, and preserve investments.

**Object class
information**

Transportation of things	+16
Rent, communications, and utilities	+69
Other services	+480
Supplies, materials, and equipment	+137
Land and structures	+79
Total	+781

Forest Trail Maintenance

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
	(Dollars in thousands)				
Forest trail maintenance	\$ 9,537	11,000	11,952	11,526	-426
Miles (thousands)	49,800	54,044	54,044	49,800	-4,244
FTE	318	337	337	320	-17

Objective To increase the opportunities for trail related recreation and maintain access for managing and administering the National Forest System.

Program description This program repairs and improves trail signs, paths, and trail bridges. This work protects the capital investment, keeps the trails cleared for public and administrative access, and protects vegetation, soil, and water quality. A trail that is not maintained may become so damaged that it must be abandoned or reconstructed.

The National Forest System contains about 99,500 miles of trails. Trails are one of the most economical means of providing outdoor recreation because they serve a wide constituency at relatively small costs.

Since 1970, trail use has more than doubled. In FY 1986, 12.9 million recreation-visitor-days were spent on NFS trails. (One recreation-visitor-day is 12 hours of recreational use.) This program maintains the trails for such use.

Trail maintenance is popular with volunteers and is often a shared cost program, where the Forest Service provides equipment, food, and supervision, and the volunteers provide labor and organization. Volunteer trail maintenance has increased from around 3,500 miles for FY 1981 to over 11,000 miles projected for FY 1987. A major portion of the volunteer effort comes from the adopt-a-trail program. This is a long-term commitment by a group or individual to care for a trail, reducing Forest Service costs for recruiting, training, and supervising volunteers.

Trail maintenance in wilderness areas is estimated to cost 25 percent more than in nonwilderness areas. This is because mechanized equipment is not allowed in wilderness areas, so trail maintenance must be done with primitive tools and methods. The acreage of wilderness areas administered by the Forest Service has increased from 25.1 million acres in 1981 to 32.4 million acres in 1986. This has substantially increased the costs of trail maintenance.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
Forest trail maintenance\$	11,952	11,526	-426
FTE	337	320	-17

A decrease of \$426,000 is proposed from the 1988 base.

Funding at the proposed level will maintain 49,800 of the highest priority miles and partially provide for the increased trail maintenance costs in additional wilderness areas.

Funds will also provide for volunteer assistance under provisions of Section 11 of the National Trail System Act. Volunteers are expected to maintain 12,000 miles of trail.

The remaining 37,700 miles of the 99,500 mile system will receive custodial maintenance involving inspection and minor repairs.

**Object class
information**

Salaries and benefits	-369
Travel	-5
Rent, communications, and utilities	-7
Other services	-27
Supplies, materials, and equipment	-18
Total	-426

Timber Sales Administration and Management

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
(Dollars in thousands)					
Timber resource inventory					
planning \$	12,023	13,280	14,222	17,277	+3,055
Thousand acres	7,544	7,100	7,100	16,500	+9,400
FTE	320	330	330	390	+60
Silvicultural examination . \$	19,596	20,870	22,560	28,200	+5,640
Thousand acres	4,158	4,722	4,722	5,355	+633
FTE	588	595	595	709	+114
Sales preparation \$	89,312	99,409	106,513	106,260	-253
Million board feet offered	11,668	11,235	11,235	11,144	-91
FTE	2,405	2,490	2,490	2,490	--
Harvest administration \$	53,076	50,580	54,553	59,459	+4,906
Million board feet harvested	11,786	11,500	11,500	11,800	+300
FTE	1,460	1,397	1,397	1,464	+67
Total \$	174,007	184,139	197,848	211,196	+13,348
FTE	4,773	4,812	4,812	5,053	+241

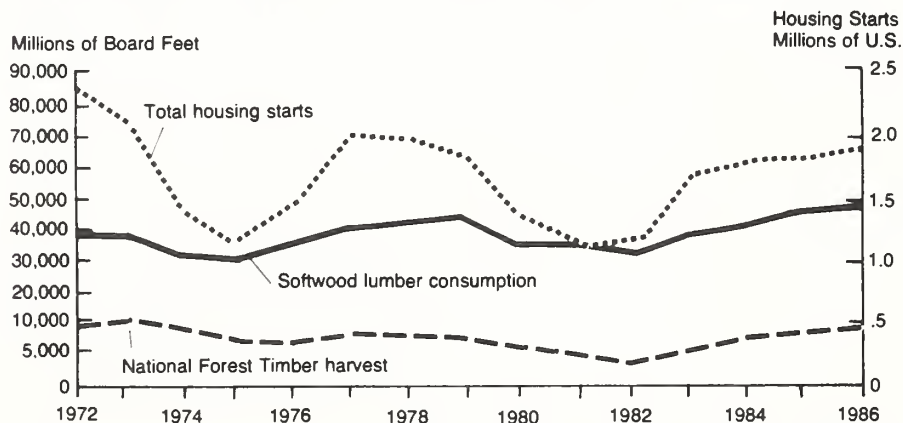
General

The National Forest System (NFS) contains the largest supply of standing sawtimber in the United States, estimated at nearly 1.1 trillion board feet. This is about 41 percent of the national total.

The national forests produce about 20 percent of the total sawtimber harvested in the United States each year. With the continued trend of growing demand for lumber, plywood, and other timber products, forest land management plans and related resource management programs must anticipate and provide for higher productivity on NFS lands, when it is economically and environmentally sound.

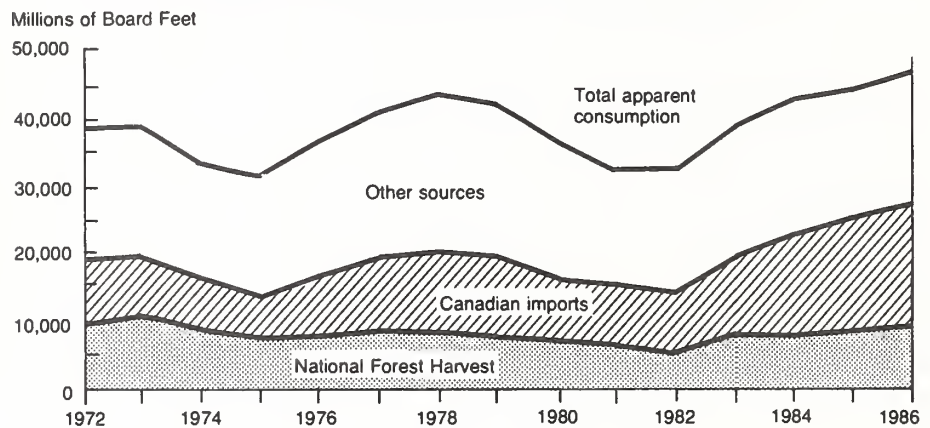
The amount of national forest timber harvested each year depends upon many factors. The most important is new housing starts (single-family and multifamily units), a major market for softwood timber.

U.S. Housing Starts Compared with Softwood Lumber Consumption and National Forest Timber Harvest 1972-1986



An increasing share of U.S. softwood timber demand has been met through imports, largely from Canada. The softwood lumber market share filled by imports from Canada has increased from 22.9 percent of market in 1972 to 32.3 percent of market in 1986. These imports buffer the effect of housing starts on NFS timber harvest levels. The U.S./Canadian agreement on implementation of an export tax by the Canadian government should reduce imports of Canadian timber and increase demand for U.S. domestic supplies.

U.S. Softwood Lumber Consumption and Sources 1972-1986



Timber sales planning, preparation, and completion process

Future timber production increases from NFS lands cannot occur on short notice. They must follow an orderly process to complete required planning, ensure compliance with the National Environmental Policy Act (NEPA) and other laws, build roads, and properly coordinate with management of other resources.

Timber sales planning and preparation follows the standards and guidelines in forest land management plans. The process begins with identification of a project area and ends with the award of a timber sale contract. A 5-year action plan is maintained for scheduling timber sale preparation. The stages of the process are:

1. Position statement development--completed at least 5 years before sale offering. Preparing a position statement includes extensive on-the-ground reconnaissance and data gathering to assess the technical and economic feasibility of preparing a timber sale proposal. This statement is prerequisite to entering the proposed timber sale project in the 5-year action plan, and to making further project investments. This stage also begins the NEPA process.

2. Sale area design--completed 1 to 3 years before sale offering. The intensive field investigation within and adjacent to the proposed project area provides information for preparing, analyzing, and evaluating alternatives under the NEPA process. The purpose is to develop an environmentally sound and economically efficient project. As a result of environmental analysis, the responsible official determines the need for a formal decision document.

During the planning and design stages of the sale, an evaluation is made of the surrounding area (a drainage, transportation analysis area, or other logical planning unit), even though a proposed timber sale may affect only a portion of the area. The pattern, methods, and timing of treatments for the entire area are considered, to ensure that developments will meet management objectives. Detailed information is developed on stand conditions, silvicultural prescriptions, logging systems applications, roads, planned fuel treatments, and other resources. Sale planners integrate economic analyses to show the economic results and tradeoffs involved in the sale.

3. Sale plan implementation--completed 3 months to 3 years before sale offering. This includes timber marking, determination of timber volume and quality, on-the-ground location of harvest units, logging system design, and road survey and design. Property lines are located, and necessary cost sharing agreements and right-of-way easements are obtained. A further review of economic assumptions from the sale-area design stage is made, to ensure that all the sale-related activities do not burden the sale with unnecessary costs.

4. Final sale package preparation--completed 2 to 3 months before sale offering. The contract, timber appraisal, advertisement, bid form, prospectus, and sale-area map are assembled and the sale is advertised.

5. Bid opening--includes accepting the bids, conducting an auction when appropriate, and determining the apparent successful bidder.

6. Sale award--includes reviewing bidder qualifications, obtaining equal employment opportunity clearance, completing a road-option investigation and feasibility review, if applicable, and identifying the qualified sale purchaser before the sale is awarded.

7. Sale administration--includes the period of time from sale award to completion of sale contract provisions. This generally takes from 1 to 5 years, without contract extension. Timber sales are administered within terms of the approved timber sale contract, so that full compliance of such terms is fairly applied to both parties. Contract modification to extend time to harvest and rate redeterminations are dealt with on a case-by-case basis.

8. Post-sale treatment--includes brush disposal, reforestation (1 to 2 years), stand improvement (1 to 5 years), and other resource coordination activities that are carried out according to specific measures identified in the sale-area design (step 2 above) and updated in periodic reviews of these prescriptions.

Timber Resource Inventory Planning

Objective To gather and provide timely information on the extent and condition of the timber resource on NFS lands.

Program description This program and the silvicultural examination program develop information necessary for planning the orderly management of national forest timber resources. This information is used primarily to determine lands suitable for timber production, determine allowable sale quantities, establish timber-sales schedules, and identify opportunities for intensive forest management.

Timber resource inventories provide information needed to compile land classification, determine timber volume, and monitor growth rates. Other information is also gathered for forest land and resource management plans. These inventories describe the condition and extent of the timber resource on each national forest, providing a measure to evaluate changes during the planning period.

The inventories also provide resource information for research publications and the national assessment and program required by the Forest and Rangeland Renewable Resources Planning Act (RPA). With the completion of a major part of the land management planning effort, about 16 million acres of NFS lands will be inventoried annually under this program. This schedule will help meet the requirements for a 10-year review cycle of NFS land and resource management planning.

This cycle of timber resource inventories is coordinated with the schedule for State forest inventories carried out under the Forest Research appropriation for forest inventory and analysis.

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Timber resource			
inventory planning \$	14,222	17,277	+3,055
FTE	330	390	+60

An increase of \$3,055,000 is proposed from the 1988 base.

This will permit collection of timber resource inventory data on about 16.5 million acres of NFS lands necessary to keep on schedule for preparing and updating forest plans, compared to 7.1 million acres in FY 1987. Funding will also permit inventory work associated with initial implementation of forest plans, while plans are engaged in appeals and litigation.

Emphasis will continue to be shifted from preparing new forest plans to maintaining and updating currently approved forest plans on a 10-year rotation.

Object class information

Salaries and benefits	+1,996
Travel	+91
Transportation of things	+16
Rent, communications, and utilities	+109
Printing and reproduction	+74
Other services	+677
Supplies, materials, and equipment	+92
Total	+3,055

Silvicultural Examination

Objective

To periodically review and analyze timber stand conditions and treatment needs to meet forest and resource management plan objectives. To provide information for monitoring and certifying silvicultural treatments to ensure that timber resources are managed properly.

Program description

This program gathers timber stand data, compiles and stores these data in stand files, and prepares an analysis and written prescription for about 5 million acres of forest land annually to ensure proper treatment. This program and the timber inventory planning program provide information needed for planning the orderly management of national forest timber resources.

Timber stands are normally examined at 10-year intervals so land managers can monitor changing stand conditions and treatment needs. Examinations should be accomplished 4 to 5 years before the proposed treatment, to allow for the orderly development of treatment prescriptions and to use information in the NEPA process.

A stand prescription, based on data from the silvicultural examination, describes current stand conditions and proposed silvicultural treatment. Although Forest Service employees conduct most stand examinations, use of contractors is increasing.

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Silvicultural examination	\$ 22,560	28,200	+5,640
FTE	595	709	+114

An increase of \$5,640,000 is proposed from the 1988 base.

This will provide for silvicultural examination activities on 5,355,000 acres, 633,000 more than the 4,722,000 acres to be examined in FY 1987.

This level of program is needed to sustain a future timber sale offer level of 11.1 BBF and to help replace FY 1988 reoffer volume with new offer volume in the future.

Object class information

Salaries and benefits	+3,144
Travel	+174
Transportation of things	+112
Rent, communications, and utilities	+331
Other services	+1,456
Supplies, materials, and equipment	+423
Total	+5,640

Sales Preparation

Objective

To carry out a timber sale program that complies with applicable laws, regulations, and land management plans; responds to short- and long-term economic factors to ensure a stable supply of wood products at reasonable prices; incorporates cost efficiency and cost effectiveness as basic decision tools while protecting national forest resource values; optimizes utilization of the available wood supply through advanced technology and marketing; and incorporates improved practices and procedures for protecting the overall public interest.

Program description

A discussion of each part of the program follows:

Timber Sale Preparation

Although the FY 1988 sale preparation program will involve work on sales to be offered in 1988, most of the work will affect sales to be offered in 1989 through 1991. Recent program levels are:

	Volume Prepared (BBF)	Volume Offered (BBF)	Volume Harvested (BBF)	Housing Starts ^{1/} (Millions)
1977	11.6	11.0	10.5	2.0
1978	12.2	12.6	10.1	2.0
1979	12.4	12.4	10.4	1.8
1980	12.4	12.4	9.1	1.3
1981	12.2	12.2	8.0	1.1
1982	11.4	11.1	6.7	1.1
1983	11.3	11.3	9.2	1.7
1984	11.9	11.9	10.5	1.8
1985	11.7	11.5	10.9	1.8
1986	11.7	11.7	11.8	1.9
1987 planned	11.2	11.2	11.5	1.8 ^{2/}
1988 planned	11.1	11.1	11.8	1.9 ^{2/}

^{1/} Department of Commerce.

^{2/} Administration economic assumptions.

The following parts comprise the timber sale preparation and offer volume:

--New sale volume

New sales are begun 1 to 5 years before advertisement, so that forest land and resource management objectives can be achieved in a cost effective manner.

The Forest Service monitors regional and forest timber sale levels to achieve a balance between the amount of timber offered for sale and local market demand. The amount of timber offered but not sold, and the amount of timber under contract but remaining unharvested, is reviewed annually and used to adjust timber sale plans to meet local market demand. These reviews also consider improving timber sale offerings to reduce the incidence of unacceptable sales.

--Reoffer volume

During the late 1970s, NFS timber was sold at high prices that were based on anticipated high levels of housing construction and continued inflation that never materialized. As a result, many sales became highly unprofitable for purchasers to operate. Subsequently, enactment of the Federal Timber Contract Payment Modification Act, P.L. 98-478, provided these purchasers the opportunity to "buy out" their unprofitable contracts.

Timber sale purchasers returned 9.7 BBF of NFS timber under this law, 95 percent of it in the Northern, Pacific Northwest, and Pacific Southwest Regions. This returned timber is being offered for resale in an orderly fashion, and is being given preference in the Forest Service timber sale program. Due to a variety of economic and environmental considerations, some of the returned timber may not be reoffered for sale. Returned timber volume is being reoffered for sale each year as follows:

<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>	<u>FY 1989</u>
2.3 BBF	3.0 BBF	2.7 BBF	.7 BBF

Most of the returned volume in the Rocky Mountain Region and Eastern Region will be reoffered by the end of FY 1987.

The FY 1988 sales will require more field and office review to ensure compliance with environmental standards, remarking of timber, and adjustment of sale conditions to make smaller size sales. The decision to reoffer is based on field estimates of the work needed to make the proposed volume available. Forest Supervisors are analyzing the contracts approved for return and will schedule the work on individual sales through the timber sale planning and preparation process described earlier.

--Salvage sale fund sales

These sales allow the Forest Service to use money from the sale of salvage material to cover the cost of preparing and administering the sale of additional insect-infested, dead, damaged, or down timber. The timber salvage sale program has provided for timely preparation, sale, and removal of this material.

These sales provide low-priced timber for small timber purchasers, remove material subject to damage from fire or disease, and yield a net return to the U.S. Treasury.

--Shelf volume

Congress has authorized and funded the Forest Service to prepare timber sales and hold them "on the shelf" ready for sale at a future date, when they can be used to dampen short-term fluctuations in the timber market.

If needed, these sales can be offered at an additional cost of about 10 percent of previous costs incurred. Shelf sales are sold each year, but replaced to maintain a continuous level of shelf volume ready for sale.

At the end of FY 1986, 850 MMBF of this shelf volume was available.

--Unsold timber sales

Each year the national forests prepare and offer timber sales that do not sell in the same fiscal year. In such cases, the timber sale is declared to have been fully prepared, and offered for sale, and efforts are made in the next fiscal years to sell it as initially offered or to modify it so it will sell. When the timber sale is sold, the volume is recorded as sold in that fiscal year. If the sale is not sold, it is withdrawn from the market to be reworked and reoffered for sale 2 to 5 years after the initial offer.

Fuelwood and Other Miscellaneous Products

In FY 1986, fuelwood use from NFS land decreased slightly from FY 1985. The equivalent of 1.0 BBF of fuelwood was sold or given free (.7 BBF sold, .3 BBF free) in FY 1986, compared with 1.5 BBF in FY 1985. Receipts from FY 1986 fuelwood sales were \$5.1 million. Fuelwood use should level off in 1987 and increase slightly in 1988, because of expected changes in the relative price of fuelwood and other heat sources. The proportion of fuelwood sold should increase as forests continue phasing in fees for fuelwood permits.

Costs for the fuelwood and other miscellaneous products program costs are borne primarily from timber sale funds, supplemented from other benefiting funds, such as brush disposal, Knutson-Vandenberg (K-V), and the timber salvage sale fund.

Special Initiatives

Special timber sale program initiatives to be developed or implemented in FY 1988 are:

--Transaction evidence appraisals. The Forest Service will continue to evaluate the transaction evidence appraisal process throughout the western regions during FY 1988. Implementation, if approved, will be expanded from the use now in effect in the Southwest Region to the Northern Region and possibly the Rocky Mountain and Intermountain Regions as the data base for the appraisal system is refined and as testing shows it to be a reliable and appropriate method. The Pacific Northwest, Pacific Southwest, and Alaska Regions will continue to test the accuracy of their systems during this period. Further expansion of transaction evidence appraisal in FY 1988 to these Regions will depend on the recommendations of the joint industry/Forest Service appraisal working group. This group will prepare a report of their review and analysis of the various appraisal methods suitable to the western regions in late FY 1987.

--Defaulted timber sales. The Forest Service expects timber sale contract defaults of 500 MMBF in the Pacific Northwest Region due to higher bidding by timber purchasers in the early 1980s. Strong emphasis will be placed on collecting damages resulting from these defaults. Further provisions will be implemented in FY 1988 to strengthen the incentives for prompt operation of all timber sale contracts and to improve the financial security of the Federal government on future contracts.

--Tree measurement. The Forest Service will continue to use tree measurement where it is more cost effective than scaling individual logs. Expansion of this procedure will continue in low value species or products through FYs 1987 and 1988. The Northern Region is continuing to evaluate sales in which timber is offered and sold on a per acre basis as opposed to a per thousand board foot basis. A national forest cruising handbook has been issued with criteria for tree measurement sales. Based on these criteria, Forest Service regions will develop a program to increase use of tree measurement sales where appropriate.

--Sales tracking and reporting system. The sales tracking and reporting system will be applied nationally in FY 1987, to follow the sale planning process from inception through post-sale activities. It will facilitate timely evaluation of the sales program during preparation, harvest, and sale area improvement. It is expected that the system will be used to track defaulted sales, damage assessments, and damage collections over the next 3 to 4 years.

--Timber sale contract. Revision of the national timber sale contract will continue through FY 1987. The final draft will be completed and published in FY 1988. The contract was last revised in 1973. In addition to incorporating significant language changes, the revised contract will improve the wording of many easily misunderstood provisions to eliminate disputes and claims.

--Appraisals. The Forest Service will continue to work with cooperating industry representatives to improve the basic data for appraisals. Mill studies will be emphasized in FY 1988, to better determine the end product volumes and values of various species.

--Timber sale cost accounting. In FY 1987, the Forest Service will submit to Congress the proposed cost accounting system, which displays national forest costs and benefits for timber sales. An information management group will direct system implementation at the forest level in FY 1988.

Related Funding

Funding for part of the FY 1988 11.1 BBF sale program, including fuelwood and other miscellaneous products, is proposed from the following permanent appropriations:

<u>Source</u>	<u>Timber Volume</u>	<u>FY 1988 Estimate</u> (Dollars in thousands)
Tongass timber supply fund	374 MMBF	\$41,755
Timber salvage sales	<u>781 MMBF</u>	<u>18,635</u>
TOTAL	1,155 MMBF	\$60,390

Cap on Uncut Timber Under Contract in Region 6

Section 2(a)(5)(C) of the Federal Timber Contract Payment Modification Act establishes two controls to limit the uncut volume of timber in Region 6 timber sales:

(1) The maximum annual timber sale volume is to be set so that no more than 12.3 BBF of net merchantable sawtimber is under contract at the end of each fiscal year.

(2) The maximum annual sale program is not to exceed 5.2 BBF of net merchantable sawtimber. These controls last through FY 1991 or the fiscal year in which the multisale extension program sales in the Pacific Northwest Region are completed, whichever is later.

As of September 30, 1986, 10.3 BBF of uncut timber was under contract in Region 6 after adjustment for the volume turned back. This was less than the 11.7 BBF uncut at the end of FY 1985 and well within the Act's maximum of 12.3 BBF. If necessary to stay within the "cap," however, the Forest Service will reduce the volume of net merchantable sawtimber sold in the Pacific Northwest Region and will increase the timber volume sold in other Regions to meet its timber sale target.

New programs are being developed to supplement existing accounting procedures to accurately monitor the amount of uncut timber under contract and administer the cap. This amount will be reported quarterly the first two quarters each fiscal year the cap is in effect, and monthly during the last two quarters, to monitor the amount of volume under contract in the Pacific Northwest Region.

Relation to Other Programs

Support from other budget line items is necessary to carry out a timber sale program within a multiple use context.

- Support from geology, fire protection, wildlife, range, recreation, water, and soils contribute to design and implementation of timber sales to achieve multiresource objectives.

- Sale preparation and administration need engineering services for transportation planning, survey, design, contract preparation, and construction inspection.

- Rights-of-way sometimes must be acquired for access to timber sales.

While timber sales help establish priorities for running land lines, land lines are established to designate ownership and to resolve disputes with adjacent landowners. Timber sales can be prepared without established land lines, so land line location costs are not included as timber support.

Brush disposal funding is primarily used for the removal of fuels as a potential fire hazard. This is a contractual agreement that is signed after a timber sale has been sold. If the work is not performed by the Forest Service, the funds are returned to the purchaser. These funds have no significance as to whether timber sales are made or not. Therefore, brush disposal costs are not included as timber support. Brush disposal is shown under Permanent Appropriations, Working Funds.

Timber sale support is shown on the following table.

National Forest System

Inventory planning	\$	12,023	13,280	17,277
Thousand acres		7,544	7,100	16,500
Unit cost	\$/acre ^{1/}	(1.59)	(1.87)	(1.05)
Silvicultural examination	\$	19,596	20,870	28,200
Thousand acres		4,158	4,722	5,355
Unit cost	\$/acre ^{1/}	(4.71)	(4.42)	(5.27)
Sales preparation	\$	89,312	99,409	106,260
Prepared/Offered MMBF		10,110	9,822	9,989
Unit cost	\$/MBF ^{1/}	(8.83)	(10.12)	(10.64)
Harvest administration	\$	53,076	50,580	59,459
Harvested MMBF		11,786	11,500	11,800
Unit cost	\$/MBF ^{1/}	(4.50)	(4.40)	(5.04)
Subtotal, Timber Sales Program	\$	174,007	184,139	211,196
Unit cost	\$/MBF offered ^{1/}	17.21	18.75	21.14

Support to the Timber Sales Program

Minerals	\$	1,126	1,471	1,069
Forest fire protection	\$	3,396	4,333	3,791
Recreation	\$	7,698	8,043	7,882
Wildlife and fish	\$	8,381	6,732	8,590
Range	\$	933	764	964
Soil and water	\$	7,531	7,394	8,070
Subtotal, Timber Support	\$	29,065	28,737	30,366
Unit cost	\$/MBF offered ^{1/}	2.87	2.93	3.04

Road Construction

Forest Service construction	\$	151,577	180,000	166,530
Purchaser construction	\$ ^{3/}	(91,474)	(110,770)	(117,799)
Purchaser roads constructed by FS	\$ ^{4/}	6,218	8,225	11,430
Subtotal, Road Construction	\$	157,795	188,225	177,960
TOTAL, Appropriated funds		360,867	401,101	419,522

Special Accounts

Timber salvage fund	\$	22,968	26,000	18,635
Offered MMBF		1,179	1,039	781
Tongass timber supply fund	\$ ^{2/}	45,793	42,254	41,755
Offered MMBF		379	374	374
Subtotal, Special Accounts	\$	68,761	68,254	60,390
Offered MMBF		1,558	1,413	1,155
TOTAL, Timber Sales Program	\$	429,628	469,355	479,912
Timber prepared and offered	MMBF	11,668	11,235	11,144
Average unit cost	\$/MBF offered ^{1/}	36.82	41.78	43.06

^{1/} All unit cost figures are shown for review purposes and are not comparable between fiscal years due to the estimated amounts of Federal employee retirement funds added to FY 1987 and 1988 programs, and to the different kinds of timber sale proposals in each fiscal year.

^{2/} Does not include reforestation and stand improvement funds. These costs are included in the Permanent Working funds section under the Tongass Timber Supply Fund (TTSF) appropriation.

^{3/} Latest estimate of actual needs. This appropriation limitation is based on the legislative authority of P.L. 97-100. No new limitation authority was required, as sufficient prior year limitation balances were available upon use in FY 1986.

^{4/} Latest estimate of actual use, based upon field estimate from most recent experience.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Sales preparation \$	106,513	106,260	-253
FTE	2,490	2,490	--

A decrease of \$253,000 is proposed from the 1988 base.

Funding at this level provides for the preparation and offer of 9,989 MMBF (7,318 MMBF new sales, 2,671 MMBF reoffer), compared to 9,822 MMBF (6,853 MMBF new sales, 2,969 MMBF reoffer) in FY 1987.

The total FY 1988 timber sale offer program is 11.1 BBF:

	Actual FY 1986	Estimated FY 1987	Estimated FY 1988
	(Million Board Feet)		
NFS new offer volume	7,793	6,853	7,318
NFS reoffer volume	2,317	2,969	2,671
Subtotal, NFS volume	10,110	9,822	9,989
Salvage sale volume	1,179	1,039	781
Tongass timber fund volume ...	379	374	374
TOTAL	11,668	11,235	11,144

This funding level is to be used to offer the increased new sale volume and to accomplish the preparation work in FY 1988 that is essential to replace reoffer volume with new offer volume in FYs 1989 and 1990. When the reoffer volume created as a result of the Federal Timber Contract Payment Modification Act (FTCPMA) is no longer available, the Forest Service must have sufficient volumes of timber sales well along in the planning process to continue an even flow of sales at the 10.0 to 11.0 BBF level.

The funding will also provide for the completion of 2,671 MMBF in reoffer and defaulted timber sales in FY 1988. The remaining 3,400 to 3,600 MMBF of timber sales that were returned and are to be reoffered for sale under the FTCPMA are sales which require substantial rework to make them consistent with current standards and guidelines. Costs for such sales will approximate the cost of new sale preparation.

The program funding for reoffer sales has been adjusted to reflect the individual forest estimates of the amount of work the specific timber sales need to meet the offer levels proposed. The reoffer and defaulted volumes will be returned to the market in a timely manner, commensurate with local market conditions and available work force.

This program level includes funding needed to prepare and offer 200 MMBF of timber sales from Oregon and California grant lands that historically have been administered by the Forest Service.

Resource support will fund that work needed to be accomplished in FY 1988 on sales scheduled for sale in FY 1988 and later years. Particular emphasis will be given in resource support efforts to resolving environmental issues that have prompted numerous administrative appeals. Minerals, cultural resources, wildlife, fisheries and soil and water issues will be addressed early in the timber sale planning process to enable completion of the needed inventories and environmental analyses.

While special efforts will be required to prepare the coordination work for the reoffer and defaulted timber sales to be offered in FYs 1988 and 1989, most of the work will be concentrated upon the coordination efforts needed for new sale proposals to replace the current levels of reoffer sales in future years.

Emphasis in fire and range resource coordination will be given to providing information to meet the fuels residue treatment and transitory range opportunities.

**Object class
information**

Travel	-15
Transportation of things	-7
Rent, communications, and utilities	-41
Other services	-139
Supplies, materials, and equipment	-51
Total	-253

Harvest Administration

Objective

To administer wood fiber harvesting in accordance with timber sale contracts and permits to minimize adverse environmental impacts; maximize benefits; and protect the government from fraud, abuse and waste.

Program description

Timber sale contracts are administered to meet land management objectives, fulfill contractual obligations, and protect the public's interests. Administration includes ensuring that purchasers understand objectives, monitoring their activities for contract compliance, approving their work, measuring (scaling) their logs for payments, ensuring proper log accountability from stump to mill, ensuring that contract payments are adequate for the expected level of activity, negotiating and resolving disputes concerning contract performance, and enforcing laws applicable to the purchasers' operations and contracts.

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Harvest			
administration \$	54,553	59,459	+4,906
FTE	1,397	1,464	+67

An increase of \$4,906,000 is proposed from the 1988 base.

This program level provides for administration of an estimated harvest of 11.8 BBF of timber. The latest estimate of 1987 harvest volume is 11.5 BBF.

This increased harvest volume and funding is due to the 1988 housing starts projection of 1.9 million. This is slightly higher than 1987 projections, and the same as 1986 starts. Continued low interest rates, a reduction in Canadian imports, and a continued strong demand for new houses will result in an increasing need for national forest timber.

The increasing number of timber sales that will be reviewed under the multiyear extension program, amount of defaults, and complexities of the log accountability and export programs have increased the work necessary to ensure that all timber sales harvest activities are reviewed and expertly handled in a timely manner. Without complete administration of timber harvest activities, there are increasing risks of waste, fraud, and abuse.

Object class information

Salaries and benefits	+1,934
Travel	+194
Transportation of things	+90
Rent, communications, and utilities	+499
Other services	+1,457
Supplies, materials, and equipment	+732
Total	+4,906

Reforestation and Stand Improvement

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc. (+) or Dec. (-) from Base
(Dollars in thousands)					
Reforestation					
NFS	\$ 26,552	22,511	24,562	5,337	-19,225
RTF	\$ 25,000	25,000	25,000	25,000	--
Total, NFS/RTF	\$ 51,552	47,511	49,562	30,337	-19,225
Thousand acres	148.8	139.7	139.7	85.0	-54.7
Tongass timber fund	\$ 191	138	142	136	-6
Thousand acres	0.2	--	--	0.1	+0.1
K-V trust fund	\$ 67,114	91,494	94,696	110,873	+16,177
Thousand acres	215.1	255.6	255.6	278.0	+22.4
Total, Reforestation Thousand acres	364.1	395.3	395.3	363.1	-32.2
Timber stand improvement					
NFS	\$ 24,030	21,833	23,830	19,635	-4,195
RTF	\$ 5,000	5,000	5,000	5,000	--
Total, NFS/RTF	\$ 29,030	26,833	28,830	24,635	-4,195
Thousand acres	251.9	185.8	185.8	134.0	-51.8
Tongass timber fund	\$ 3,591	3,423	3,529	3,488	-41
Thousand acres	7.5	6.3	6.3	6.3	--
K-V trust fund	\$ 18,742	28,091	29,113	35,199	+6,086
Thousand acres	100.7	182.4	182.4	182.0	-0.4
Total, Stand improvement Thousand acres	360.1	374.5	374.5	322.3	-52.2
Nursery and tree improvement operations					
NFS	\$ 14,546	14,549	15,469	14,667	-802
Undistributed RTF	\$ ^{1/} 305	--	--	--	--
Total, NFS	\$ 65,128	58,893	63,861	39,639	-24,222
Total, RTF	\$ ^{1/} 30,305	30,000	30,000	30,000	--
Total, NFS/RTF	\$ 95,433	88,893	93,861	69,639	-24,222
FTE	1,751	1,778	1,778	1,416	-362
Total, Tongass timber fund	\$ 3,782	3,561	3,671	3,624	-47
Total, K-V trust fund	\$ 85,856	119,585	123,809	146,072	+22,263
FTE	1,335	1,504	1,504	1,793	+289
TOTAL	\$ 185,071	212,039	221,341	219,335	-2,006
FTE	3,086	3,282	3,282	3,209	-73

^{1/} Budget authority in Reforestation Trust Fund is limited to \$30 million.

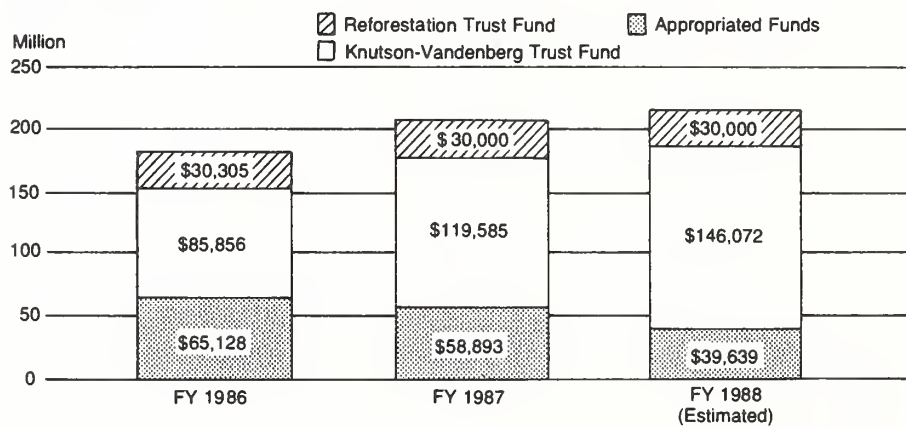
General

Reforestation and stand improvement activities are directed toward obtaining adequate stocking of forest lands and maintaining a level of timber productivity sufficient for sustained yield management of National Forest System (NFS) lands. The objective is to increase the growth rate and product quality of timber growing on national forests to levels consistent with environmental quality, multiple resource use objectives, and social and economic benefits and costs.

The reforestation and stand improvement program is financed with appropriated funds, reforestation trust funds, and Knutson-Vandenberg funds (K-V). These funds are used to reforest harvested areas; areas damaged by fire, insects, or disease; or unsuccessful plantations, and to release planted trees from competing vegetation or overcrowding.

These funds pay for seedlings purchased from Forest Service and private nurseries. Contracts for site preparation, animal damage control, fertilization, tree planting, release, precommercial thinning, and a limited amount of tree pruning are also charged to these funds.

Sources of Funding for Reforestation and Stand Improvement (1986-1988)



Reforestation

Objective

To reforest annually an area equal to the area deforested annually.

Program description

As of October 1, 1986, an estimated 848,000 acres of NFS land needed reforestation because of timber harvest; natural disasters such as fire, storms, insects, and disease; and previous unsuccessful reforestation treatments. Such reforestation needs accrue continually at the rate of about 425,000 acres per year.

The Forest Service meets these needs through seeding, planting, and preparing sites to encourage natural regeneration, based on the approved management prescription. Some areas regenerate naturally without special treatment or investments beyond the timber harvest operation.

The K-V reforestation account in the Trust Funds appropriation is used to purchase seedlings for reforesting timber sale areas. Seedlings to be planted on all other areas, such as areas burned over by wildfire, are purchased with funds from the National Forest System appropriation.

The estimate of reforestation needs changes each year as accomplishments are reported, new inventories are completed, acres are added due to timber harvests, and other changes occur. Lands are certified as reforested following periodic on-the-ground examination for 3 years to verify the success of the reforestation. The following table shows changes in the reforestation needs since 1986, and estimated FY 1988 current needs.

Reforestation Needs

	<u>Thousand acres</u>
Balance, October 1, 1986, actual	848
Projected new needs in FY 1987	+425
Projected accomplishments in FY 1987	<u>-395</u>
New Balance, October 1, 1987	878
Projected new needs in FY 1988	+425
Projected accomplishments in FY 1988	<u>-363</u>
New Balance, October 1, 1988	940

Current needs have leveled off at the desirable level of about 1 million acres, indicating a continuing reforestation program of about 425,000 acres per year, including K-V work.

This rate represents the 2- to 3-year lag between the time an area is deforested and when it is reforested. This lag is due to factors that affect the timing of site preparation (especially slash disposal by burning), contracting, and the production of seedlings for that specific site.

Reforestation is a capital investment opportunity. Cost effectiveness is therefore a primary concern in planning and scheduling work. The program is guided by efforts to improve benefit-cost ratios through analysis of regeneration techniques and related work.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Reforestation	\$ 24,562	5,337	-19,225
FTE	318	93	-225

A decrease of \$19,225,000 is proposed from the 1988 base.

With reforestation trust funds of \$25,000,000, this program level provides for the reforestation of 85,000 acres compared to 139,715 acres in FY 1987. The decrease of 54,715 acres is the result of increased emphasis upon the K-V reforestation program due to increased timber harvesting.

The combined appropriated, trust fund, Tongass, and K-V reforestation program will accomplish about 85 percent of the estimated annual need of 425,000 acres. This will result in a current needs level of 940,000 acres at the end of FY 1988, compared to a projected 878,000 acres at the end of FY 1987.

The proportion of reforestation accomplished with appropriated funds continues to decline, while reforestation accomplished with K-V funding has increased from about 59 percent in FY 1986 to 77 percent in FY 1988.

The proposed program level is consistent with the planned nursery seedling production for FY 1988 and recognizes the need to keep the current budget level for investments as low as possible while still meeting management objectives.

**Object class
information**

Salaries and benefits	-5,914
Travel	-262
Transportation of things	-153
Rent, communications, and utilities	-716
Other services	-7,898
Supplies, materials, and equipment	-3,803
Land and structures	-479
Total	-19,225

Timber Stand Improvement (TSI)

Objective To improve timber growth and vigor by maintaining stocking control and removing competing vegetation.

Program description Timber stand improvements increase timber growth or product quality by thinning to removing excess trees, removing competing vegetation, and fertilizing stands.

Each year about 400,000 acres of new stands are created by reforestation. As these new trees grow, most will need to be released from competing vegetation and/or thinned to maintain healthy, vigorous stands.

Young unmerchantable stands of trees are thinned, usually with chainsaws or hand tools, to remove surplus and poor quality trees and allow the remaining trees to grow at optimum rates. Hand tools, prescribed fire, machinery, and herbicides are used to remove or retard growth of competing vegetation, thus releasing trees to increase growth rates or to favor desirable species.

As of October 1, 1986, 1.4 million acres needed timber stand improvement to improve growing conditions. Of this amount, 490,000 acres needed release from competing vegetation and 850,000 acres needed thinning. The remaining acres--about 80,000--needed fertilization or pruning.

A maintenance level of about 1 million acres of TSI needs is a desirable working level. This allows adequate lead time for planning and project preparation, and flexibility to adjust to changes.

Timber Stand Improvement Needs

	<u>Thousand acres</u>
Balance, October 1, 1986, actual	1,418
Projected new needs in FY 1987	+375
Projected accomplishments in FY 1987	<u>-374</u>
New Balance, October 1, 1987	1,419
Projected new needs in FY 1988	+375
Projected accomplishments in FY 1988	<u>-322</u>
New Balance, October 1, 1988	1,472

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Timber stand improvement	\$ 23,830	19,635	-4,195
FTE	408	280	-128

A decrease of \$4,195,000 is proposed from the 1988 base.

With reforestation trust funds of \$5,000,000, this program level provides for timber stand improvement of 134,000 acres compared to 185,820 acres in FY 1987. The decrease of 51,820 acres is the result of an increased emphasis upon the K-V stand improvement program as a result of increased timber harvesting.

The combined appropriated, trust fund, Tongass, and K-V stand improvement programs will accomplish 86 percent of the estimated annual need of 375,000 acres and result in current needs of 1,472,000 acres by October 1, 1988. This level of stand improvement will increase annual growth by 500 MMBF per year.

**Object class
information**

Salaries and benefits	-3,076
Travel	-18
Transportation of things	-14
Rent, communications, and utilities	-59
Other services	-838
Supplies, materials, and equipment	-137
Land and structures	-53
Total	-4,195

Nursery and Tree Improvement Operations

Objective

To improve the genetic quality of seed and planting stock used on National Forest System (NFS) land. To produce high quality planting stock in appropriate numbers and species for timely reforestation.

Program description

Tree Improvement Program

The two major goals of this program are (1) to apply sound genetic principles to all silvicultural prescriptions and (2) to provide seed for seedling production that will yield adaptable, fast growing, high quality, pest-resistant trees. Forest tree improvement programs have been implemented to varying degrees in all regions. Seed collection zones and/or breeding zones based on physiographic and biological data have been delineated in all regions to ensure use of locally adapted seed.

Intensive tree improvement programs are implemented for those species and breeding zones where investments can be justified. These programs include tree selection, seed orchard establishment and management, progeny testing and selective breeding.

These programs can increase the growth by an estimated 5 percent on low productivity sites and by 10 percent on high productivity sites in the first generation alone.

Improved, high-quality superior stock that has been developed in the genetic tree improvement program is being grown in Forest Service nurseries. These improved seedlings are projected to increase growth and yields in the future by at least 10 to 15 percent.

Nursery Operations

Eleven bareroot and two container nurseries produce high quality seedlings to meet reforestation needs cost-effectively. These nurseries must produce seedlings that meet the specific species and seed-source requirements peculiar to the individual areas to be reforested.

Eleven nurseries use the nursery management information system (NMIS). This computer system maintains information and generates reports on seed quality and inventory and on seedling production and inventory. The computers are also used to streamline other operations, such as sowing calculations, workforce management, fleet use, and inventories.

Seedling production costs at each nursery are charged to the working capital fund (WCF) and are in turn repaid as a cost of seedlings in the reforestation program. Any new facilities at these nurseries are funded from facilities construction funds and turned over to WCF for operation and maintenance. The nursery improvement funding in this program is for the replacement, upgrading, and conversion of facilities not covered under the facilities construction program. Once the specific repair or replacement has been completed, the project is added to the WCF for that nursery.

Operation of all but one nursery is funded through the WCF. Production over the past 10 years has averaged 129.8 million bareroot and 6.0 million container seedlings. Production during FY 1986 was 116.8 million bareroot and 3.5 million container seedlings.

Forest Service seedling production is supplemented through contracts with State and private nurseries, which averaged 32.7 million seedlings per year over the past 10 years and 32.3 million during FY 1986. The combined production of bareroot seedlings and containerized stock will be about 145 million seedlings for the FY 1988 program.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Nursery and tree improvement operations	\$ 15,469	14,667	-802
FTE	327	318	-9

A decrease of \$802,000 is proposed from the 1988 base.

This proposed \$14,667,000 program includes \$2,302,000 for nurseries management and \$12,365,000 for the genetic tree improvement program. The \$14,549,000 program in 1987 includes \$2,027,000 for nurseries management and \$12,522,000 for genetic tree improvement.

The nursery management program will be concentrated upon the continued production of high-quality superior stock for planting within specific tree breeding zones. The tree improvement program will concentrate upon maintaining and improving currently established seed orchards and progeny testing.

Monitoring programs to track the production of high-quality superior stock from the establishment of seed production areas to outplanting has begun. This program emphasis will be continued in FY 1988 to include more sites and zones.

**Object class
information**

Salaries and benefits	-233
Travel	-21
Transportation of things	-9
Rent, communications, and utilities	-36
Other services	-304
Supplies, materials, and equipment	-121
Land and structures	-78
Total	-802

Recreation Use

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Recreation management ... \$	82,216	90,824	96,997	42,360	-54,637
Million PAOT-days	108.9	104.0	104.0	92.4	-11.6
FTE	2,108	2,152	2,152	853	-1,299
Operation and maintenance of recreation facilities \$	--	--	--	(52,000)	(+52,000)
FTE	--	--	--	(1,235)	(+1,235)
Wilderness management ... \$	7,520	10,030	10,765	9,637	-1,128
Million acres	32.1	32.4	32.4	32.4	--
FTE	210	257	257	220	-37
Cultural resource management \$	9,281	9,368	10,146	12,292	+2,146
Million acres inventoried	1.6	1.6	1.6	1.8	+0.2
FTE	273	273	273	297	+24
Total \$	99,017	110,222	117,908	64,289	-53,619
RVDs	226.5	225.0	225.0	225.0	--
FTE	2,591	2,682	2,682	1,370	-1,312

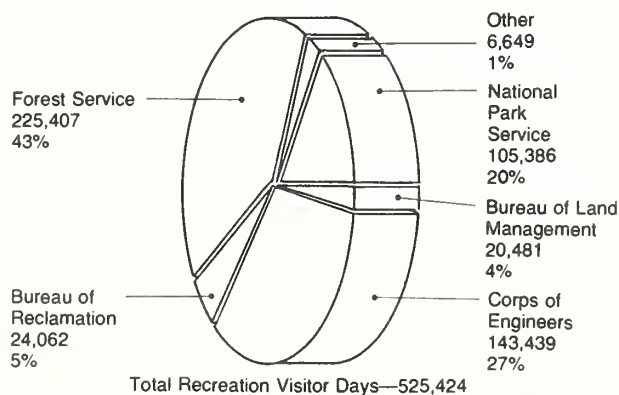
General

The National Forest System (NFS) occupies a land area 10 percent larger than Texas and provides more outdoor recreation than any other Federal property or single landholding. Of the 525 million visitor-days on Federal lands in FY 1985, 43 percent (225 million visitor-days) was provided by the Forest Service. Activities range from senior citizens camping at Forest Service campgrounds, to backpackers hiking on remote hiking trails, to winter sports enthusiasts skiing at commercially operated resorts.

The Forest Service works with businesses and other government agencies to make sure programs are complementary and to avoid duplication of facilities and services.

1985 Recreation Visitor-Days (RVDs) by Federal Agency

(Thousand RVDs)



Source: Federal Recreation Fee Report 1985, Department of the Interior.

Recreation Management

Objective

To manage and protect the natural resources and facilities that accommodate the public's need for outdoor recreation, emphasizing opportunities to know and experience nature. To maintain, repair, and restore existing facilities necessary to meet the demands for public outdoor recreation in natural settings. To use private sector capital through concession permits when appropriate.

Program description

The national forests provide a variety of recreation opportunities for the public. Two-thirds of recreation is in the general forest area, away from facilities. White-water rafting, backpacking, hunting, and fishing are very popular.

The National Forest System has a capacity for 158 million PAOT-days at recreational facilities. (PAOT-day is the number of people-at-one-time a site or area can safely and reasonably accommodate times the number of days in the managed season.) The following recreation facilities are operated and maintained to provide additional opportunities and provide one-quarter of the total recreation use on NFS land:

	<u>Number</u>	<u>Capacity</u>
Family campgrounds	4,122	437,998
Group campgrounds	284	34,628
Family picnic grounds	1,331	91,035
Swimming sites	325	78,985
Boating sites	1,134	119,847
Interpretive and information sites	948	57,552
Winter sports sites	158	35,018

The Forest Service issues and administers permits to the private sector for recreation purposes. These facilities provide for one-tenth of the total recreation use on National Forest System lands. In FY 1986, the number of permitted operations were:

	<u>Number</u>
Recreation residences	15,800
Winter sports resorts	160
Organization camps	480
Lodges and resorts	555

The major emphasis is to provide efficient recreation opportunities and facilities. The Land and Water Conservation Fund Act of 1965, as amended, permits user fees to be charged at recreational facilities having basic amenities, including toilet facilities, drinking water, refuse containers, and tent or trailer spaces.

User fees are being charged at about 2,350 of the 6,062 National Forest System family campgrounds, group campgrounds, reserved picnic, and swimming sites. The remaining facilities either do not offer the amenities currently required by the Act for a charge area, or fee processing is uneconomical because of size or location.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Recreation management ... \$	96,997	42,360	-54,637
FTE	2,152	853	-1,299
Operation and maintenance of recreation facilities \$	--	52,000	+52,000
FTE	--	1,235	+1,235
Total funding available . \$	96,997	94,360	-2,637
FTE	2,152	2,088	-64

A decrease of \$54,637,000, is proposed from the 1988 base.

The decrease in appropriated funds is almost totally offset by the proposed permanent appropriation account, Operation and Maintenance of Recreation Facilities, which makes Forest Service receipts available for program use.

There is a net decrease of \$2,637,000 in total funds available. The combined program level will allow the Forest Service to operate about 92.4 million PAOT-days of managed facility use. Emphasis will be on maintaining the physical plant to slow deterioration of sites and facilities.

**Object class
information**

Salaries and benefits	-36,663
Travel	-1,211
Transportation of things	-588
Rent, communications, and utilities	-3,498
Printing and reproduction	-267
Other services	-7,958
Supplies, materials, and equipment	-4,452
Total	-54,637

Wilderness Management

Objective

To protect and preserve wilderness resources and values while providing for a wide variety of users and minimizing potential conflicts.

Program description

Wilderness is managed for scenic, scientific, educational conservation, historical, and recreation use. Although recreation occurs in wilderness areas, they are not primarily recreational areas. Less than 6 percent of recreation use on the national forests occurs in designated wilderness areas.

To accomplish the stated objectives and comply with wilderness legislation the Forest Service informs back country managers, many of whom are volunteers, and wilderness users of rules and regulations by maps, brochures, and permits.

In FY 1986, the Forest Service managed 338 wilderness areas in 33 States, with a total of 32.4 million acres. About one acre in six of the National Forest System is now in the National Wilderness Preservation System. Recreation use of wilderness was 12 million visitor days, 5 percent of all recreation use on the National Forest System.



Fishing in the Maroon Bells - Snowmass Wilderness, White River National Forest, Colorado.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Wilderness management .. \$	10,765	9,637	-1,128
FTE	257	220	-37

A decrease of \$1,128,000 is proposed from the 1988 base.

This program level will provide for the highest priority management needs of the 174 wilderness areas.

**Object class
information**

Salaries and benefits	-980
Travel	-19
Rent, communications, and utilities	-21
Other services	-51
Supplies, materials, and equipment	-57
Total	-1,128

Cultural Resource Management

Objective

To protect and manage the cultural resources on NFS lands and implement the requirements of the National Historic Preservation Act, the National Environmental Policy Act, the Archaeological Resources Protection Act, and USDA regulations. To help meet resource targets in timber, range, minerals, and special uses.

Program description

The Forest Service employs archaeologists to direct and coordinate cultural resource work and advise land managers on matters involving cultural resources. Since 1971, 16 million acres have been surveyed for cultural resources. Over 100,000 cultural resource properties have been recorded from these surveys, and from records and studies. Three hundred and fifty properties have been placed on the National Register of Historic Places and an additional 9,000 are eligible for listing.

The loss of cultural resources to vandalism, pothunting, illegal digging, and theft in many parts of the country is a great concern. The Forest Service has been investigating and prosecuting pothunting cases since the mid-1970s. Since passage of the Archaeological Resources Protection Act (ARPA) in 1979, Forest Service special agents have been directly involved with many convictions in several States. In FY 1986, 13 citations were issued for violations of cultural resource laws and regulations and 9 arrests were made in more serious incidents.

In FY 1986, 80 percent of both acres surveyed and acres cleared were in support of timber, minerals, and energy resource development programs. Acres reported as surveyed are those acres actually examined. Acres cleared are those within a project's boundaries for which cultural resource compliance actions were concluded.

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Cultural resource management	\$ 10,146	12,292	+2,146
FTE	273	297	+24

An increase of \$2,146,000 is proposed from the 1988 base. This program level will provide for inventory of 1.8 million acres, 0.2 acres greater than FY 1987.

The Forest Service will meet the inventory and evaluation requirements for national forest activities with emphasis on timber, mineral, energy, and range programs. Mitigation of impacts caused by resource activities will be funded from the benefiting appropriation. Law enforcement activities will be increased to reduce illegal digging and removal of artifacts on NFS lands.

Object class information

Salaries and benefits	+674
Travel	+212
Transportation of things	+58
Rent, communications, and utilities	+226
Land and structures	+26
Other services	+776
Supplies, materials, and equipment	+174
Total	+2,146

Wildlife and Fish Habitat Management

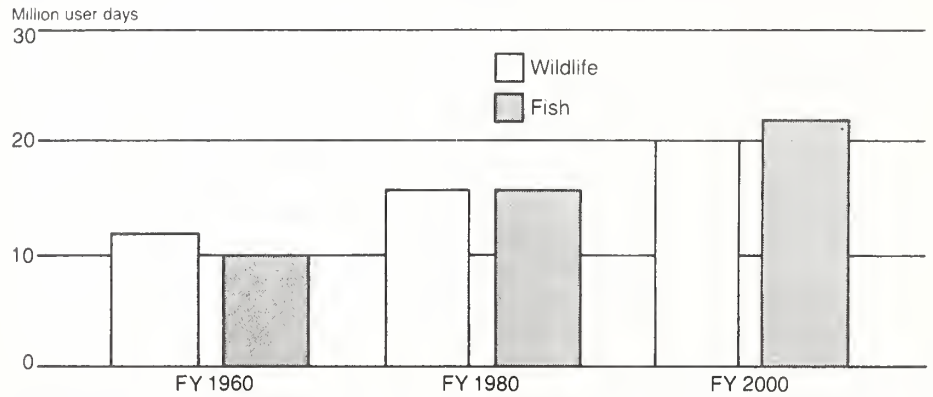
	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)				
Wildlife and fisheries administration and resource coordination \$	22,698	25,272	26,973	28,622	+1,649
FTE	570	593	593	612	+19
Wildlife habitat improvement \$	6,440	6,480	6,897	4,256	-2,641
Acres	114,107	74,156	74,156	64,903	-9,253
Structures	2,299	2,440	2,440	1,654	-786
FTE	145	145	145	100	-45
Resident fish habitat improvement \$	1,886	1,745	1,855	1,453	-402
Acres	6,570	4,499	4,499	2,021	-2,478
Structures	3,024	1,491	1,491	1,321	-170
FTE	41	38	38	30	-8
Endangered, threatened, and sensitive species habitat improvement \$	2,368	3,505	3,671	1,307	-2,364
Acres	32,430	28,118	28,118	27,645	-473
Structures	253	477	477	940	+463
FTE	47	57	57	26	-31
Anadromous fish habitat improvement \$	3,695	4,535	4,702	2,286	-2,416
Acres	2,120	1,476	1,476	929	-547
Structures	2,016	1,347	1,347	774	-573
FTE	51	56	56	31	-25
Total \$	37,087	41,537	44,098	37,924	-6,174
FTE	854	889	889	799	-90

General

The Forest Service manages more than 191 million acres of habitat for about 3,000 species of wildlife and fish. Half of the big game and coldwater fish habitat in the Nation is located on National Forest System (NFS) lands and waters. The National Forest System is becoming increasingly important for wildlife and fish related recreation as private lands are converted to other uses and the costs of hunting, fishing, and nonconsumptive uses (birdwatching, etc.) on private lands increase.

In FY 1986, NFS lands provided about 32 million wildlife and fish user-days (12-hour days). The trend from FY 1960 to FY 1980, projected to FY 2000, is shown in the following figure. Public demand is expected to increase by 25 percent for hunting and 40 percent for fishing by FY 2000.

Trend of Wildlife and Fish User-Days on the National Forest System



Fishing use is expected to increase by at least 40 percent on the National Forests by the year 2000.

The National Forest System provides most of the habitat for many fish and wildlife species, such as cutthroat trout, moose, black bear, elk, bighorn sheep, and mountain goats. About 80 percent of all the elk harvested in the United States (about 80,000 annually) comes from NFS lands. The range of wild turkey populations on the National Forests has increased significantly in the past 30 years through cooperative programs with the States. NFS lands provide more than 50 percent of the rearing and spawning habitat for salmon and steelhead in California and the Northwest. NFS waters annually produce more than 118 million pounds of salmon and steelhead valued at over \$123 million. They have the potential to produce 190 million pounds of salmon and steelhead with an estimated value of \$229 million.

The National Forest System is key to the survival and recovery of many threatened or endangered species, such as the grizzly bear, woodland caribou, California condor, red-cockaded woodpecker, Lahontan cutthroat trout, and gray wolf. Habitats for 129 federally listed threatened and endangered species and 12 species proposed for listing are being managed on NFS lands. In compliance with the Endangered Species Act of 1973, as amended, the Forest Service carries out inventories, plans habitat protection and improvement programs, and carries out other activities as the Agency's share of recovery objectives. The work is done in cooperation with the Fish and Wildlife Service, individual States, other agencies, organizations, and individuals. The sensitive species program provides special management attention to certain plants, fish, or wildlife to prevent reductions in habitat that would cause them to become federally listed as threatened or endangered.

The goal of habitat management on NFS lands is to maintain healthy, self-sustaining populations of all existing native and desired non-native vertebrate species, and to improve the habitat productivity for those species highly desired by the public, such as deer, elk, wild turkey, trout, bass, and salmon.

This goal is accomplished indirectly through habitat benefits from other resource management programs, such as timber and range management; directly through capital investments, which include such activities as seeding, planting, burning, and aquatic habitat development; and through cooperation with State fish and wildlife agencies in their management activities.

Forest Service personnel work closely with other Federal, State, and local agencies in planning and performing activities that affect fish and wildlife on NFS lands. Comprehensive plans, displaying habitat improvement and maintenance needs to meet State objectives for wildlife and fish on NFS lands, have been prepared jointly with State fish and wildlife agencies in 42 States.

Wildlife and Fisheries Administration and Resource Coordination

Objective

To administer the wildlife and fisheries program and provide biological expertise in planning all activities that affect habitat, in order to minimize impacts or enhance habitat.

Program description

Administration of the program includes such activities as cooperation with State and Federal agencies and with fish and wildlife interest groups, planning wildlife and fisheries habitat goals in coordination with other resource activities, training for biologists, habitat surveys, habitat monitoring, and development of wildlife and fisheries habitat planning models.

For resource coordination, wildlife and fisheries biologists work with other Forest Service resource managers to design projects or programs, such as timber sales, mineral developments, and livestock grazing. An example of wildlife habitat enhancement through resource coordination is a timber sale on a winter range specifically designed to increase big game forage. In most instances, resource coordination efforts of Forest Service biologists are designed to protect habitat or to minimize impacts of other resource management programs.



Biologists from the Georgia Department of Natural Resources and the Chattahoochee-Oconee, Nantahala, and Sumter National Forests, with assistance from Trout Unlimited, conduct a fisheries inventory in the Chattooga River. This cooperative project is part of the Southern Region's Challenge Grant Program.

**Increase
for 1988**

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Wildlife and fisheries administration and resource coordination \$	26,973	28,622	+1,649
FTE	593	612	+19

An increase of \$1,649,000 is proposed from the 1988 base.

Support to other resource programs to provide for wildlife and fish surveys, mapping, inventory, and evaluation will be funded to comply with the National Environmental Policy Act, the National Forest Management Act, and the Endangered Species Act. Recent judicial interpretations of these laws require increasingly precise analysis and habitat evaluations.

There will be an increase in the availability and use of wildlife and fish habitat models on which other resource activities may be evaluated. Several fisheries and big game habitat models will move from testing to operational phases. Use of cumulative effects models will continue to increase. These models predict the likely effects of other management activities on wildlife and fish habitat for a variety of species.

Surveys and habitat mapping for big game, upland bird, and cold-water fish species will increase. These projects will be established to (a) meet coordination needs in areas where impacts from other resource activities would occur and (b) accomplish those projects which are done in coordination with the States to meet management needs. Inventories and habitat surveys will be emphasized for species in high public demand.

**Object class
information**

Salaries and benefits	+641
Travel	+132
Transportation of things	+39
Rent, communications, and utilities	+197
Other services	+461
Supplies, materials, and equipment	+179
Total	+1,649

Wildlife Habitat Improvement

Objective

To maintain or improve habitat for wildlife species in public demand for consumptive or nonconsumptive purposes.

Program description

Emphasis is on improving habitats that cannot be improved through the management of other resources, such as timber, and on mitigating impacts from other management activities. Wildlife habitat improvements include such activities as prescribed burning for bighorn sheep, elk, deer, and turkey; water developments for quail, chukars, and mourning doves; access management on existing roads to reduce habitat disturbance for elk, mountain goats, and black bear; nesting structures for wood ducks; and riparian and wetland improvements for waterfowl, wading birds, and other wetland associated species.

Prescribed burning projects are conducted to provide an early stage of forest succession for species such as the white-tailed deer, bighorn sheep, sharp-tailed grouse and elk. Wetland improvements include the construction of low-head dams for the development of marsh vegetative types and the creation of potholes, which provide nesting and resting areas for a variety of ducks.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Wildlife habitat improvement	\$ 6,897	4,256	-2,641
FTE	145	100	-45

A decrease of \$2,641,000 is proposed from the 1988 base.

Accomplishments will be decreased from 74,156 acres of habitat improvement in FY 1987 to 64,903 in FY 1988, a decrease of 9,253 acres. The number of structures will decrease from 2,440 to 1,654, a decrease of 786 structures.

Emphasis will be on increased efficiency and projects that mitigate habitat losses from timber sales and other resource projects, and those which benefit several species, such as wetlands improvements and prescribed burning.

Object class information

Salaries and benefits	-1,202
Travel	-101
Transportation of things	-51
Rent, communications, and utilities	-122
Other services	-716
Supplies, materials, and equipment	-379
Land and structures	-70
Total	-2,641

Resident Fish Habitat Improvement

Objective

To maintain or improve habitat capability for those resident fish species in public demand.

Program description

Present activities maintain the capability of lakes and streams to sustain resident fish populations. Priority is given to projects that mitigate losses due to development activities.

Habitat improvement activities include installing artificial spawning reefs and fish shelters to improve lake habitats, creating sheltered pools in streams to increase fish holding capacity, and placing structures in streams to provide fish spawning and rearing habitat. The potential to increase resident fisheries production on NFS lands is estimated at 25 percent.



BEFORE:
Very limited
hiding cover and
feeding areas
for fish

AFTER:
Pool area for
feeding and hiding
created above and
below structure



Stream habitat improvements, such as this structure, will increase the habitat capability for fish.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Resident fish habitat improvement	\$ 1,855	1,453	-402
FTE	38	30	-8

A decrease of \$402,000 is proposed from the 1988 base.

Accomplishments will be reduced from 4,499 acres in FY 1987 to 2,021 in FY 1988, a reduction of 2,478 acres. Structural accomplishments will be reduced from 1,491 in FY 1987 to 1,321 in FY 1988, a reduction of 170 structures.

Projects in high-productivity fish habitats that mitigate for other activities such as timber sales, minerals development and livestock grazing will receive highest priority for management.

Emphasis will be placed on increasing efficiency and maintaining current habitat capability placed on lakes and streams. Enhancement projects, such as those which improve habitat for trout, will also be emphasized.

**Object class
information**

Salaries and benefits	-218
Travel	-11
Transportation of things	-5
Other services	-120
Supplies, materials, and equipment	-48
Total	-402

Endangered, Threatened, and Sensitive Species Habitat Improvement

Objective

To maintain or improve habitat for recovery of threatened and endangered plants and animals and to sustain viable populations of sensitive plants and animals, to avoid the need for Federal listing of these species.

Program description

The Forest Service provides habitat protection and management for endangered, threatened, and sensitive species found on NFS lands.

Activities to protect habitat and avoid further losses of threatened, endangered, or sensitive species include:

- Prescribed burning to maintain habitat for the Kirtland's warbler in Michigan and the red-cockaded woodpecker in the Southeast;
- Assisting the States and the Fish and Wildlife Service in reintroducing peregrine falcons;
- Managing in-stream and riparian habitat for threatened and endangered fish, such as the Lahontan cutthroat trout;
- Providing facilities and technical guidance for the Puerto Rican parrot program; and
- Identifying and mapping habitat for spotted owls and grizzly bears.



The spotted owl is a sensitive species whose population viability reflects the abundance and distribution of nature and old-growth communities in the Pacific Northwest.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Endangered, threatened, and sensitive species habitat improvement\$	3,671	1,307	-2,364
FTE	57	26	-31

A decrease of \$2,364,000 is proposed from the 1988 base.

Habitat improvement will be decreased from 28,118 acres to 27,645, a reduction of 473 acres. Structural targets will increase from 477 structures to 940, an increase of 463 structures.

Emphasis in habitat improvements will be directed to species in the most critical situations. Threatened, endangered, and sensitive species with stabilized populations and habitat will have recovery projects delayed.

**Object class
information**

Salaries and benefits	-802
Travel	-141
Transportation of things	-57
Rent, communications, and utilities	-54
Other services	-964
Supplies, materials, and equipment	-346
Total	-2,364

Anadromous Fish Habitat Improvement

Objective

To maintain or improve habitat capability to produce anadromous fish for commercial use, sport fishing, and Native American subsistence.

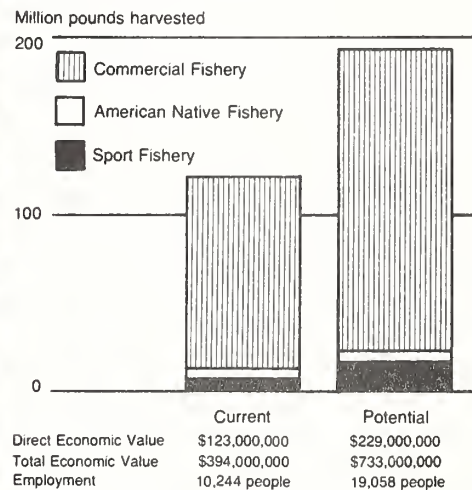
Program description

Present projects are intended to maintain the habitat capability for production of West Coast anadromous fish, such as spring chinook salmon and steelhead in the Columbia River Basin. Activities include removing fish barriers, placing stream habitat improvement structures, fertilizing lakes, and creating artificial spawning and rearing facilities.

This program is critical to restore spawning and rearing habitats that were degraded by past development of other resources. By complementing the Northwest Power Planning Council and other fishery restoration plans, the Forest Service has an opportunity to move this resource to its full production potential. NFS waters could support an increase of 72 million pounds of anadromous fish.



Current and Potential Anadromous Fish Production on the National Forest System



Habitat improvement projects such as this fish ladder constructed on the Tongass National Forest in Alaska, are important to increasing salmon and steelhead production from National Forest System lands.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Anadromous fish			
habitat improvement ...\$	4,702	2,286	-2,416
FTE	56	31	-25

A decrease of \$2,416,000 is proposed from the 1988 base.

Accomplishments will be reduced from 1,476 acres to 929 acres, a reduction of 547 acres. Structural targets will be reduced from 1,347 structures to 774, a reduction of 573 structures. Habitat improvements will include the construction of in-stream pool and riffle structures and erosion control structures along streambanks.

Highest priority will be given to projects that increase efficiency and that mitigate the effects of timber sales, minerals development, and livestock grazing. Projects that improve habitat for species of commercial value and that are coordinated with other Federal and State agency efforts will receive second priority.

**Object class
information**

Salaries and benefits	-745
Travel	-224
Transportation of things	-77
Rent, communications, and utilities	-189
Other services	-882
Supplies, materials, and equipment	-299
Total	-2,416

Range Management

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u> (Dollars in thousands)	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Range vegetation management \$	23,231	24,355	26,154	24,822	-1,332
Permitted livestock					
Grazing use (million AUMs)	10.1	10.1	10.1	10.0	-0.1
FTE	619	630	630	594	-36
Range forage and structural improvements \$	2,092	769	1,028	738	-290
Forage improvement:					
Thousand acres	83.3	59.7	59.7	45.4	-14.3
Structural improvement:					
Structures	2,263	2,989	2,989	2,634	-355
FTE	38	20	20	12	-8
Wild free-roaming horses and burros \$	262	275	287	261	-26
FTE	4	4	4	4	--
Noxious farm weed control . \$	1,309	1,400	1,473	1,058	-415
Acres treated	23,307	14,640	14,640	12,682	-1,958
FTE	24	25	25	21	-4
Total \$	26,894	26,799	28,942	26,879	-2,063
FTE	685	679	679	631	-48

Summary of funds available for the range program:

	<u>1986 Actual</u>	<u>1988 Base</u>	<u>1988 Estimate</u>
Range management	26,894	28,942	26,879
Range Betterment Fund	<u>3,635</u>	<u>3,644</u>	<u>3,750</u>
Total	30,529	32,586	30,629

General

The range program emphasizes the cost effective management of range vegetation for a variety of uses, including grazing by domestic livestock as well as forage for wild horses, burros, and wildlife.

In FY 1988, changes in allotment management plans will be made as a first step in the implementation of land management planning standards and guidelines for range management.

The range program emphasizes management of range vegetation to provide for sustaining other resource values, such as soil productivity and water quality, protection of watersheds, wildlife habitat, threatened and endangered flora and fauna, ecological diversity, watershed protection, and recreational activities. The range program contributes to the quality of life of rural residents and communities that depend on National Forest System (NFS) range vegetation.

Range Vegetation Management

Objective

To implement land management planning goals for range vegetation. To contribute to the economic well-being of the public served by national forests and grasslands. To produce range forage on NFS lands in a cost effective manner. To demonstrate range management practices for use on associated private lands. To promote cooperation and coordination among farmers, ranchers, government agencies, and others interested in making the most effective use of range vegetation of all ownerships.

Program description

Livestock grazing allotments encompass 102 million acres or 53 percent of the NFS lands in 36 States. About 51 million acres are suitable for livestock grazing; the remainder are unsuitable because of unstable soils, steep topography, or inherent low potential for forage production. Acres unsuitable for livestock grazing are often suitable habitat for wildlife species.

In FY 1986, there were 10,387 grazing allotments used by ranchers to graze cattle, horses, sheep, and goats. Eighty-six percent of the cattle permittees have base herds of 500 cattle or less. In the West, NFS ranges supply an average of 25 percent of the permittee's annual requirements for livestock feed.



Range vegetation is managed for a variety of uses, including grazing by sheep.

Revenue to the U.S. Treasury from domestic livestock grazing will be about \$8.4 million in FY 1988. Grazing fees were set at \$1.35 per animal month for the national forests in the 16 Western States in 1986 by Presidential executive order. This value does not consider benefits to wildlife, both game and nongame species, soil and water quality, and watershed protection, resulting from range vegetation management activities.

Increased emphasis is directed toward implementing the allotment plan to ensure that desired results are being obtained.

In FY 1986, improved management was begun on 338 allotments. Improved management begins when one or more management actions prescribed in the allotment plan, such as fence construction, brush control, or livestock water developments have been completed. In FY 1986, 72 percent of the allotments were under improved management. Improved management occurs when the actions prescribed in the allotment management plan are carried out according to a schedule that will not permit regression in range condition. Comparable figures for the past 5 fiscal years follow:

	<u>Total Allotments</u>	<u>Allotments with Improved Management Maintained</u>		<u>Allotments with Improved Management Started</u>	
1982	11,069	6,886	62%	705	6%
1983	10,417	7,125	68%	534	5%
1984	10,296	7,018	68%	471	5%
1985	10,223	7,237	71%	351	3%
1986	10,387	7,503	72%	338	3%

**Decrease
for 1988**

		<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
		(Dollars in thousands)		
Range vegetation management	\$	26,154	24,822	-1,332
	FTE	630	594	-36

A decrease of \$1,332,000 is proposed from the 1988 base.

Program emphasis in FY 1988 will be to begin implementation of land management plans (LMP) by identifying those grazing allotments that do not meet LMP standards and guidelines for livestock grazing, environmentally sensitive areas including riparian areas, and threatened and endangered species. For those allotments, specific courses of action must be developed so that corrective measures can be taken. Limited allotment management plan revisions and plan implementation to correct problem allotments will also occur.

This level allows partial fulfillment of obligations to administer grazing permits through limited monitoring of grazing use and to meet LMP objectives for other resource values, such as threatened and endangered species and environmentally sensitive areas (e.g., riparian areas), on the allotments. Limited emphasis will be placed on correcting management problems for key resources such as riparian areas.

Permitted animal-unit-months (AUM), most of which are based on 10-year grazing permits through 1995, are expected to decline slightly for a total of 10.0 million AUMs in FY 1988. At the proposed funding level, the number of temporary permits issued will decrease.

**Object class
information**

Salaries and benefits	-1,104
Travel	-21
Rent, communications, and utilities	-45
Other services	-104
Supplies, materials, and equipment	-58
Total	-1,332

Range Forage and Structural Improvements

Objective

To maintain and improve soil and vegetative cover on NFS land to provide forage for livestock, wild horses and burros, and wildlife. To identify and measure the relevant economic effects of range improvement programs, projects, and practices.

Program description

Range improvement is any facility or treatment constructed or installed to improve range vegetation or livestock management. Improvements consist of structures (fencing and water developments) and vegetation manipulation (plant species control) to improve forage conditions. These improvements often are designed to benefit wildlife, improve soil and water quality, and protect watersheds while providing for sustained use by livestock.

A major part of the capital investments on national forests in the 16 Western States is financed from the Range Betterment Fund. Planning and administrative costs for these improvements are paid primarily from range management or other benefiting programs. Beginning in FY 1988, a small part of such costs will be paid from the Range Betterment Fund. (See language change proposal for Range Betterment Fund.)

Outputs and accomplishments are a combination of range management and Range Betterment Fund activities.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Range forage and structural improvement . \$	1,028	738	-290
FTE	20	12	-8

A decrease of \$290,000 is proposed from the 1988 base.

This program level provides for priority investments in cost effective structural and forage improvements. Emphasis is shifted from forage to structural improvements, to begin replacing those structural improvements at the end of their life cycle.

Improvement accomplishments are a reflection of the range management and Range Betterment Fund appropriations. This combination allows for completion in FY 1988 of 2,634 structures and 45,385 acres of forage improvements, compared with 2,989 structures and 59,700 acres in FY 1987.

Object class information

Salaries and benefits	-214
Travel	-5
Rent, communications, and utilities	-6
Other services	-33
Supplies, materials, and equipment	-32
Total	-290

Wild Free-Roaming Horses and Burros

Objective To manage, protect, and control wild free-roaming horses and burros on NFS lands.

Program description The Forest Service protects, manages, and controls about 1,900 wild horses and burros on NFS lands. These activities are coordinated with the Bureau of Land Management, which also has management responsibilities for wild horses and burros.

Population levels to achieve management objectives are based on wild horse and burro forage and habitat requirements in coordination with wildlife, permitted livestock, and other range uses. Excess animals are removed by authorized personnel. They are adopted by qualified people, who may receive title after 1 year of proper care.

In FY 1986, 147 excess wild, free-roaming horses and burros were removed from designated territories. Scheduled removals for FY 1987 will maintain herd size at a level that ensures continued renewal of the forage resource.

Decrease for 1988	1988		
	Base	Estimate	Decrease
	(Dollars in thousands)		
Wild free-roaming horses and burros	\$ 287	261	-26
FTE	4	4	--

A decrease of \$26,000 is proposed from the 1988 base.

This level will continue to provide protection, management, and control of the wild free-roaming horses and burros. The estimated annual population increase (125 animals) will be removed and made available for adoption.

Object class information	Other services	-20
	Supplies, materials, and equipment	-6
	Total	-26

Noxious Farm Weed Control

Objective

To control noxious weeds on NFS lands, including reimbursement to local, county, and State weed control authorities as provided in the Carlson-Foley Act of 1968 (43 U.S.C. 1241-43). To establish and maintain beneficial plant cover on NFS lands to maintain productivity and limit the invasion of specified noxious weeds onto adjacent private lands.

Program description

Noxious weeds affect not only the vegetation used by livestock but also other resource values, such as wilderness, wildlife habitat, recreation opportunities, and the value of the land itself. Noxious weed infestations occur on 1.6 million acres of NFS lands in the Western States and are spreading at an apparent rate of 7 percent annually.

Many States have enabling legislation authorizing counties and other jurisdictions to establish weed control districts covering all or part of a county. Weed control districts are concerned with control of noxious weeds within the district regardless of land ownership. Treatment is effective only when control efforts are coordinated among all affected land owners. Priority for use of program funds is to control noxious weeds on NFS lands when the weed district is controlling the same species of noxious weeds on private lands.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Noxious farm weed control	\$ 1,473	1,058	-415
FTE	25	21	-4

A decrease of \$415,000 is proposed from the 1988 base.

This level of funding will allow treatment of noxious farm weeds consistent with court decisions on the use of herbicides. Increased emphasis will be placed on using the latest technology in biological control agents.

Treatments will be coordinated with local weed control boards, and priority given to preventing the invasion or reinvasion of additional NFS lands by noxious farm weeds.

Accomplishments will be decreased from 14,640 acres treated in FY 1987 to 12,682 in FY 1988, a decrease of 1,958 acres.

Object class information

Salaries and benefits	-94
Travel	-8
Transportation of things	-15
Rent, communications, and utilities	-13
Other services	-135
Supplies, materials, and equipment	-119
Lands and structures	-31
Total	-415

Soil, Water, and Air Management

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc. (+) or Dec. (-) from Base
	(Dollars in thousands)				
Soil, water, and air operations \$	21,237	24,030	25,513	27,104	+1,591
FTE	491	505	505	526	+21
Soil and water resource improvement \$	2,988	3,125	3,278	2,000	-1,278
Thousand acres	8.1	6.7	6.7	4.4	-2.3
FTE	50	51	51	35	-16
Soil and water resource inventories \$	6,299	6,065	6,389	4,825	-1,564
Million acres	5.7	7.4	7.4	4.1	-3.3
FTE	114	109	109	85	-24
Total \$	30,524	33,220	35,180	33,929	-1,251
FTE	655	665	665	646	-19

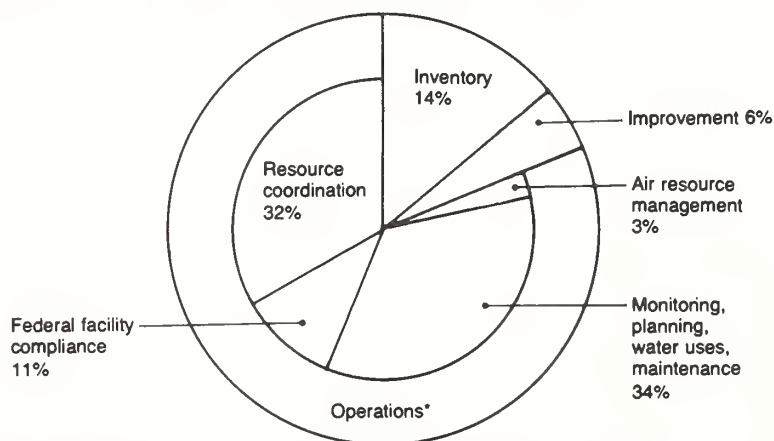
General

The objectives of the soil, water, and air management program are: to achieve water of suitable quality and quantity to meet public needs and desires; to provide for the continued production of other resources by protecting and enhancing soil productivity; and to provide for the protection of air quality related values.

In FY 1988 the soil, water, and air program includes funding to provide for Federal facility compliance required by Section 313 of the Clean Water Act and similar provisions in other acts.

Maintaining or improving soil, water, and air values results in direct benefits to the range, recreation, timber, wilderness, fish, and wildlife resources, as well as public enjoyment and use of these resources.

Composition of Soil, Water, and Air Funding - FY 1988



* Operations includes resource coordination, monitoring, planning, administering water uses and maintenance of improvements.

Soil, Water, and Air Operations

Objective

To use soil, water, and air in meeting overall resource production and environmental goals.

Program description

The program includes:

- Assisting in the conduct of activities such as timber sales, mineral development, livestock grazing, or recreation development through resource coordination. An example is evaluating potential soil erosion and water quality impacts of a road construction project and designing conservation practices that will avoid damage to these resources.

- Monitoring soil, water, and air resources to determine whether goals for water and air quality and soil productivity are being met and to provide a basis for identifying more effective management practices. This work is necessary to validate the effectiveness of practices in meeting goals and to meet the requirements of the National Forest Management Act, Clean Water Act, Safe Drinking Water Act, and Clean Air Act.

- Maintaining existing soil and water improvements to ensure their continued effectiveness.

- Identifying and quantifying water requirements to carry out management responsibilities on the National Forest System, and securing and validating water rights to meet these requirements through State procedures.

- Preparing emergency rehabilitation plans for lands damaged by wildfires, floods, or other natural disasters, as authorized by the Agricultural Credit Act (16 U.S.C. 2203). About 164,401 burned acres were rehabilitated in FY 1986.

- Preparing soil and water improvement plans for lands in declining watershed condition. In addition to normal appropriations, this work is also authorized by the Lake Tahoe Basin Act (P.L. 96-586) and Knutson-Vanderburg Act (K-V), as amended. About 3,562 acres were improved in FY 1986 with K-V funds.

- Managing air resource through the review of preconstruction applications for private sector development under the prevention of significant deterioration (PSD) program.

- Cooperating with other agencies in soil, water, and air resource activities on or directly affecting the National Forest System. This work includes water supply and flood forecasting; surveys of air quality, soil, and water quality; and management of public water supplies. In FY 1986 and 1987, activities include participation with the Environmental Protection Agency in the visibility monitoring program.

Federal facilities compliance projects accomplish essential corrective actions for high-impact category projects associated with point and non-point source pollution abatement, providing safe drinking water systems, and for proper handling and disposal of asbestos, PCBs, and safe storage of pesticides at Forest Service facilities.



Example of streambank stabilization with large rock on upper Truckee River, Tahoe National Forest. This project was completed in cooperation with South Tahoe Public Utility District.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Soil, water, and air operations	\$ 25,513	27,104	+1,591
FTE	505	526	+21

An increase of \$1,591,000 is proposed from the 1988 base.

This increase is necessary to initiate action on Federal facilities that need controls applied to abate pollution. A total of \$3,600,000 will be used for Federal facility compliance projects. These high priority projects are aimed at reducing point and non-point source pollution, providing safe drinking water systems, and for proper handling and disposal of asbestos and PCBs. One example of a non-point source pollution project is erosion control work in Lake Tahoe Basin.

Resource coordination to other management programs will be sufficient to protect soil and water quality. Monitoring and maintenance of improvements will be limited to the high priority areas.

**Object class
information**

Salaries and benefits	+738
Travel	+110
Transportation of things	+40
Rent, communications, and utilities	+196
Other services	+318
Supplies, materials, and equipment	+189
Total	+1,591

Soil and Water Resource Improvement

Objective

To improve soil productivity and water quality, and to provide for favorable conditions of waterflow.

Program description

Soil and water improvement activities include installing runoff and erosion control structures, reshaping gullied land, and revegetating denuded areas.

These activities reduce erosion and improve soil productivity. Water quality is improved by reducing the movement of sediment and other pollutants to streams and lakes.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Soil and water resource improvement	\$ 3,278	2,000	-1,278
FTE	51	35	-16

A decrease of \$1,278,000 is proposed from the 1988 base.

Part of this reduction in funds will be offset by an increase of \$4,794,000 in K-V soil and water improvement funds for timber sale areas.

This reduction will focus on priority needs for soil and water support in designing and prescribing measures to mitigate soil loss and water pollution from management activities.

The FY 1988 program will permit treatment of 4,398 acres, compared to 6,738 acres in FY 1987. Projects that produce the greatest benefits in improved water quality and resource production will receive highest priority. Program emphasis will be on improvement of critically eroding areas.

Object class information

Salaries and benefits	-424
Travel	-48
Transportation of things	-27
Rent, communications, and utilities	-83
Other services	-390
Supplies, materials, and equipment	-306
Total	-1,278

Soil and Water Resource Inventories

Objective

To provide information concerning soil and water capabilities and limitations for use in resource management and planning. This information is used to meet the basic stewardship responsibilities of ensuring long-term soil productivity and the continued supply of high quality water.

Program description

These inventories are used to collect, describe, map, and interpret basic soil and water resource information required to manage the National Forest System for multiple use and sustained yield. Information provided includes:

- Soil productivity, and the resource potentials and limitations.
- Extent and location of soils having erosion and stability problems.
- Water yield and quality, including timing of flows.
- Stability of lakes and streams.



Soil resources inventories are designed to identify fragile areas subject to earth flows (landslides). Such information is valuable when planning management activities. This earthflow, the untimbered center portion of photo, is adjacent to Granite Creek on the Bridger-Teton National Forest.

Soil inventories are conducted at different levels of intensity:

- Low intensity inventories provide information for planning and broad resource allocation. All lands should be inventoried at this intensity.

- High-intensity inventories provide information for use in areas where intensive management is planned. About half of the NFS lands will be covered by these inventories.

Water resource inventories are conducted to meet identified management needs. They provide information for beneficial uses, such as instream flow needs, management activities, and practices to maintain and improve watershed conditions.

**Decrease
for 1988**

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Soil and water resource inventories			
\$	6,389	4,825	-1,564
FTE	109	85	-24

A decrease of \$1,564,000 is proposed from the 1988 base.

The total program will allow completion of 4,090,000 acres of soil and water inventories. This compares to 7,396,000 acres planned for inventory in FY 1987.

The reduced program will emphasize high-intensity soil inventories needed to implement timber and other resource management activities scheduled in forest plans. Work will continue on collecting interpretive data to provide soil capability ratings and identify fragile areas. Emphasis will be on inventory interpretations to maintain long-term soil productivity and watershed conditions.

**Object class
information**

Salaries and benefits	-798
Travel	-96
Transportation of things	-26
Rent, communications, and utilities	-70
Printing and reproduction	-11
Other services	-423
Supplies, materials, and equipment	-57
Grants, subsidies and contributions	-83
Total	-1,564

General Administration

		1986 Actual	1987 Approp. Enacted to Date (Dollars in thousands)	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
Line management	\$	42,493	43,185	47,119	48,094	+975
	FTE	891	886	886	867	-19
Program support	\$	105,758	109,852	120,691	119,660	-1,031
	FTE	4,335	4,472	4,472	4,172	-300
Common services	\$	102,978	103,959	104,787	104,827	+40
Total	\$	251,229	256,996	272,597	272,581	-16
	FTE	5,226	5,358	5,358	5,039	-319

General

General administration consists of managerial and support activities that are not readily identified with specific programs when they are planned. For financial planning, budgeting, and accounting purposes, these activities which support budgeted programs within National Forest System, Research, State and Private Forestry, Construction, and Land Acquisition appropriations are financed from the general administration line item.

Administrative support for permanent and trust programs is financed by assessments against those funds. Internal controls ensure that the ratio of assessments to these programs does not exceed the ratio of appropriated general administration to support appropriations.

Discussions follow on administrative activities grouped under line management, program support, and common services. These administrative activities provide essential managerial and technical support to individuals and units involved in research and in resource management and protection. These activities represent the general administration cost of accomplishing Forest Service programs.

Line Management

		1986	1987	1988
		(Dollars in thousands)		
Washington office	\$	769	784	790
	FTE	14	14	14
Field offices	\$	41,724	42,401	47,304
	FTE	877	872	853
Total	\$	42,493	43,185	48,094
	FTE	891	886	867

Objective To direct, manage, and coordinate Forest Service programs to ensure they are carried out efficiently and respond to national, regional, and local needs.

Program description Costs of the following line management positions, including secretarial support, are charged to General Administration:

- Chief, Associate Chief, and Deputy and Associate Deputy Chiefs of Administration and Programs and Legislation.
- Regional Foresters and Deputies for Administration or Deputy Regional Foresters in regions having only one primary deputy.
- Station Directors, Deputy Directors, and Assistant Directors for Planning and Applications and Support Services.
- Area Director, State and Private Forestry.
- Forest Supervisors and Deputy Forest Supervisors.
- District Rangers.

		1988	1988	
		Base	Estimate	Increase
		(Dollars in thousands)		
Line management	\$	47,119	48,094	+975
	FTE	886	867	-19

An increase of \$975,000 is proposed from the 1988 base.

A \$765,000 increase in salary and benefit costs is due to merit pay increases, general schedule employee step increases, and increases in the cost of employee benefits; particularly health benefits. The savings from a decrease of 19 line management personnel is also directed to cover additional salary and benefit costs.

An increase in travel is expected due to increased costs per trip, as well as a slight increase in the amount of travel.

Object class information	Salaries and benefits	+765
	Travel	+210
	Total	+975

Program Support

		1986 (Dollars)	1987 (in thousands)	1988
Washington office	\$	14,102	14,055	15,251
	FTE	337	326	312
Field offices	\$	91,656	95,797	104,409
	FTE	3,998	4,146	3,860
Total	\$	105,758	109,852	119,660
	FTE	4,335	4,472	4,172

Objective To provide the necessary administrative support to efficiently and effectively carry out Forest Service programs and respond to the Executive Branch and Congress on policy and budget matters.

Program description Program support funds are for salaries, travel, training, and career development of program support staffs. These staffs include program planning, development, and budget; resources program and assessment coordination; information offices; personnel management and civil rights; procurement and property; fiscal, accounting, and public safety; and other general-purpose support staff.

Within some of the administrative groups, some activities can be readily identified with the benefiting program and are funded accordingly. Examples are timber sale accounting, timber cost collection, Job Corps Centers, and concessionaire audits performed by fiscal and accounting management groups. Conversely, positions located in areas other than typical administrative units may not be readily identified with the benefiting program. An example is a forest fire staff officer with safety and health responsibilities. Such administrative duties are funded from general administration.

General administration funds at least one clerk in all Ranger Districts, and possibly an administrative assistant, one or two clerks, and a procurement specialist on larger districts.

Many research field locations also have business management personnel funded from general administration. Where research locations are funded by a single research line item, however, business management support is charged directly to that program.

Legislative Affairs

Legislative affairs has the primary responsibility for analyzing proposed legislation and providing information to help the Executive Branch and the Congress consider and enact needed legislation.

In doing this, legislative affairs personnel:

- Prepare proposals for new or amended legislation as part of the Department's legislative program (10 to 15 proposals per year).

- Prepare reports stating the Department's position on proposed legislation in response to requests from congressional committees or from the Office of Management and Budget (80 to 90 legislative reports per year).

- Prepare testimony and supporting briefing materials for Departmental witnesses in preparation for congressional hearings. Prepare followup information that committees may request (50 to 60 hearings per year).

- Respond to telephone requests from congressional offices for information on Forest Service programs and activities (1,000 to 1,500 calls per year).

- Keep Forest Service personnel informed on the status of legislation, and provide information and training for understanding the legislative process.

Program Development and Budget

Program development and budget activities occur at all levels in the Forest Service. Budget staffs are responsible for developing annual Forest Service budgets which reflect specific program objectives, outputs, targets, and work force and funding requirements.

Budget proposals reflect on-the-ground needs identified in forest land management plans and provide the basis for presenting and justifying Forest Service programs to USDA, OMB, and the Congress.

Once the appropriation bill is signed, work accomplishments are tracked relative to funded program objectives and output targets. At the end of the year, an evaluation of work completed and dollars obligated is prepared and presented to management. These evaluations are used as a basis for future budget development.

Tasks involved in this process are:

- Program development and analysis. Field units develop budget proposals based on annual planning direction and forest plans. Budget alternatives are developed and analyzed at each organizational level and used in developing alternative national proposals for the Forest Service.

- Budget documents and presentation. Forest Service budget proposals are negotiated with the Secretary of Agriculture and the Office of Management and Budget and are incorporated into the President's annual budget. Detailed explanatory notes, witness statements, briefings, and display material are prepared to explain and justify the budget.

- Budget execution. Funds, targets, and personnel ceilings are allocated to field units. Periodically, financial needs are projected, requests are submitted for apportionments and outlay ceilings, and reprogramming requests are prepared. Emergency funding needs are handled as they occur during the year. This is closely coordinated with sponsoring agencies that transfer funds to the Forest Service to carry out Job Corps, watershed planning, flood prevention, and other such programs.

- Accountability and control. Periodically, budget personnel review field units' program planning and budget activities and conduct necessary training. Program target accomplishments are analyzed relative to plans and expenditure of funds. Results and recommendations are presented to line officers.

- Annual Report to Congress. As required by the Forest and Rangeland Renewable Resources Planning Act of 1974, an annual report is prepared to analyze Forest Service accomplishments and resource conditions relative to the recommended RPA Program and appropriated funding. The report is submitted to Congress.

Resources Program and Assessment

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) requires the Secretary of Agriculture to assess the Nation's renewable resources situation every 10 years. This assessment projects the future demand and supply of renewable resources on all forest and rangeland in the United States. The most recent assessment was prepared in 1979 and supplemented in 1984.

The RPA also requires the Secretary to prepare a long-term program every 5 years in response to the assessment. Based on analysis of several alternatives, cost effectiveness, and public comments, the Secretary selects a recommended RPA program. Programs were sent to Congress in 1975, 1980, and 1986.

RPA program activities will involve the following major tasks in FY 1988:

- Development of the 1989 Assessment. Assembling final data for the assessment to ensure a complete resource-by-resource data base and completing special studies and analyses. Producing the draft assessment document.
- Development of the 1990 RPA Program. Defining and reviewing resource goals. Developing draft needs, opportunities, and implications to present with alternative goals for public review and comment. Developing options for presenting program alternatives and determining a final array of alternatives.
- Analysis of RPA information base. Comparing and analyzing new data from forest plans, state forest resource plans, and identifying research needs to prepare for revising the data base for the 1990 RPA. Preparing and field testing the technical instructions for developing the 1990 Program data base and distributing the final instructions, and training personnel in their use. Identifying, preparing, and testing analytical systems. Preparing socioeconomic analyses and final resource values.
- Briefings and discussions. Discussing and reviewing processes, data, and analyses with congressional staffs, other agencies, national interest groups, and others. Developing a public participation plan to ensure public involvement throughout the 1990 Assessment and Program development process.

Environmental Coordination

Environmental coordination staff at the national, regional, and forest levels:

- Provide agencywide direction and leadership in implementing the National Environmental Policy Act (NEPA) and coordinating environmental programs. Examples include establishing agency policies and procedures; developing, organizing, and conducting training programs; reviewing environmental documents; and monitoring compliance in the field.
- Coordinate with the Environmental Protection Agency (EPA), Council on Environmental Quality (CEQ), and other Federal agencies on environmental matters affecting natural resources and the National Forest System.
- Advise the Chief and other Agency managers and staff on national policies to implement NEPA, and provide technical assistance in carrying out NEPA responsibilities.

- Provide leadership, technical assistance, and guidance in social sciences to ensure consideration of social factors in Forest Service programs and activities. Examples include developing policies, procedures, and source materials; organizing workshops and training sessions; and evaluating results in the field.

- Train Agency personnel in NEPA responsibilities and procedures, including CEQ regulations, and Forest Service policy. During FY 1988, Service-wide implementation of revised (1985, 1987) Forest Service NEPA procedures will be monitored to attain expected increases in productivity and new efficiencies in carrying out the NEPA process. Agency proposals and their alternatives will be carefully evaluated to ensure that environmental analyses focus on the most important issues, that appropriate documentation is used when necessary, and that other NEPA requirements are met.

- Evaluate and recommend changes when needed in agency procedures for (1) mitigating potential damage from proposed agency actions, (2) monitoring program and project implementation to ensure desired outcomes, (3) addressing cumulative environmental effects such as those produced when multiple development activities occur at the same time within the same geographical area, and (4) making resource decisions when relevant information is incomplete or uncertain.

Policy Analysis

Policy Analysis is a separate staff at the national headquarters level, although some similar activities are carried out at regional and forest levels. The staff does in-depth analyses and examines high priority policy issues. The general approach is to collect pertinent data, do an objective analysis, and develop and evaluate alternatives for consideration by policymakers. Work assignments consist of:

- Responding to requests from USDA, OMB, and the Congress for special analyses and studies on policy issues of national and/or international concern. Examples include examining the impact of liability insurance industry changes on forest special use permit requirements, examining alternative receipt sharing arrangements with state and local governments, and developing effective means to display benefits and costs of the Forest Service timber sales program.

- Developing or revising of Forest Service policies in response to changing conditions and public needs. As policies are questioned, high priority policy issues are assigned to the staff to develop alternatives needed for making decisions on policy matters. Examples include analyzing the ability to change forest management direction as conditions change during the lifetime of the forest land management plans, timber sale program accounting, and alternative directions for research programs given changing needs.

- Evaluating of Forest Service programs to determine whether they are meeting public needs and expectations efficiently and providing public benefits. Priority program evaluations are assigned where detailed economic, efficiency, and public need analyses are required. The results are used to determine when program changes are needed. Examples include the management of forest road programs, alternative means of timber appraisal, and the impact of funding levels on forestry programs and planned management actions.

Personnel Management

Personnel Management develops and manages Forest Service personnel programs. This involves formulating objectives, policies, and guidelines for national and regional activities. More specifically, personnel staff:

- Develop policies and guidelines for position classification, merit promotion, performance evaluation, internal placement, upward mobility, cooperative education, summer and seasonal employment, and special emphasis programs designated to meet the employment needs of handicapped, disadvantaged, and other persons covered by statute and regulations.

- Develop policies and programs to implement incentive awards, orientation, training, and planned employee development programs.

- Develop, administer, and evaluate programs of occupational health and safety for employees.

- Advise and assist field offices in all personnel functions and provide technical assistance in labor relation activities.

Civil Rights

Civil Rights supports all Forest Service activities that by law require equal employment and equal access for all citizens. Civil rights concerns are part of every major activity in the Forest Service.

The Forest Service's equal employment opportunity program objectives are: (1) to eliminate discrimination in employment for all qualified persons, and (2) to promote the full realization of equal employment opportunity through an affirmative action program.

The Agency's progress in equal employment opportunity since 1976 is as follows:

	FY 1976		FY 1986	
	Number	Percent	Number	Percent
Total employees	28,502		30,628	
Minority	2,208	7.7	3,534	11.5
Women	6,164	21.6	9,292	30.3
Total Professional	7,928		10,031	
Minority	218	2.7	626	6.2
Women	137	1.7	1,176	11.7
Total administrative/technical	8,017		15,014	
Minority	5731	7.1	1,968	13.1
Women	1,205	15.0	4,159	27.7

Volunteers and Hosted Human Resource Programs

The Forest Service provides opportunities for individuals to participate in its activities through the Volunteers in the National Forests and hosted human resource employment programs. The administration of these programs is financed from general administration.

These programs help reduce the backlog of conservation work. Forest Service activities that benefit from these programs are recreation, wildlife management, emergency activities, timber stand improvement, erosion control, and other land and water conservation work.

Volunteers are of various ages and backgrounds. Adults are provided the opportunity to use their skills and talents in meaningful activities, and many young enrollees are given the opportunity to acquire their first gainful work experience.

In FY 1986, 51,720 persons participated in the Volunteers program. Volunteers contributed 1,909 person-years of work valued at \$23 million.

In hosted programs, the Forest Service serves as a host agency for cooperative programs administered primarily by State and local governments. During FY 1986, 6,394 persons participated in these cooperative programs. Participants accomplished 775 person-years of conservation work valued at \$9.7 million.

Computer Sciences, Communications, and Information Systems Management

The primary objective of the Forest Service's information resources management is to improve the Agency's efficiency, effectiveness, and productivity by increasing the availability and usefulness of natural resource and administrative information to Forest Service managers and the public.

This program applies current and emerging information resources management technology, concepts, and principles to support the mission of the Forest Service cost effectively at each organization level. Specific functions are to:

- Make information more effectively serve activities in national forest management, research, and State and private forestry.
- Reduce costs by improving the availability and accessibility of information in support of the Forest Service mission and goals.
- Improve communication, decisionmaking, and support for programs by expanding Service-wide systems for distributed processing and graphics.
- Use the latest information technology in managing forms, reports, and records.
- Provide computer technology for information storage and retrieval.
- Reduce costs and improve operation of radio and telecommunications.
- Provide integrated information processing capabilities throughout the Agency.

Procurement and Property Management

This activity provides support to Forest Service managers for acquiring, using, and disposing of a wide variety of goods and services within the framework of laws, regulations, and sound business practices. Procurement and property managers:

- Plan and direct procurement, space, and property management programs to respond to Agency needs.
- Develop directives and other guidelines to conform with Federal laws and regulations.

- Delegate procurement authority to qualified individuals.
- Manage the assistance programs (grants and agreements).
- Maintain liaison with vendors, manufacturers, and trade associations to stay abreast of new technology and market developments.
- Establish and adjust rental rates for about 5,000 housing units, including trailer space facilities, each year in accordance with 5 U.S.C. 5911.

Fiscal and Public Safety

This activity is concerned with developing guidelines and implementing an integrated budget and accounting system consistent with the requirements of the General Accounting Office, Office of Management and Budget, Department of the Treasury, and Office of the Secretary of Agriculture. Specific functions are providing guidance, oversight, and direction for:

- Financial control systems, with emphasis on fund accountability, receipt collections, voucher auditing, and disbursements.
- Computing, scheduling, and paying through electronic transfers nearly \$300 million annually to States and counties consistent with laws and regulations.
- Cash and debt management activities.
- Investigations and claims for and against the Government.
- Law enforcement activities to protect the public, Forest Service employees, natural resources, and Federal property on the National Forest System.
- Coordinating and ensuring timely followup action on management reviews and Office of Inspector General and General Accounting Office Audits. Improvement of management controls to prevent waste, loss, and misuse, and to meet the requirements of the Federal Managers Financial Integrity Act and OMB Circular A-123.

A major design effort in FY 1987, to improve the financial and accounting information system, will be implemented in FY 1988.

Management Analysis and Support

This activity includes management support, organization structure and workforce evaluation, and primary staff support to major management improvement initiatives. These include:

- Coordinating efforts to reduce costs and improve effectiveness through work simplification, work measurement, methods and procedures, and benefits-cost analysis.
- Helping evaluate unit consolidation proposals, major changes in organizational structure, staffing levels, and skills requirements.
- Managing the employee suggestion program in accordance with P.L. 92-463 and P.L. 95-112.

Public Information and Involvement

The Forest Service's public information and involvement activities inform the public about the management of the National Forest System and about the natural resource attributes of these lands. These activities also convey the results of the Agency's research and cooperative State and private activities to a broad segment of the general public. Public involvement activities ensure that citizens are included in Forest Service policy development and decisionmaking.

The role of information dissemination in carrying out the Forest Service's mission has been prescribed in legislative authorities and directives, including the Organic Act, National Environment Policy Act, Forest and Rangeland Renewable Resources Planning Act, and the National Forest Management Act.

To carry out these responsibilities, the Forest Service has professional specialists in press, radio, television, audiovisuals, publishing and printing, public involvement, history, and environmental education. They provide information on subjects of major interest, and transfer highly technical information to research organizations, universities, industry, and cooperators.

The public information and involvement staff administers the Woodsy Owl environmental education program and carries out a variety of internal communication efforts.

The Forest Service is participating with other USDA and Federal agencies in the "Take Pride in America" campaign which began in 1986. It encourages citizens to take better care of the land as they use it, as well as repairing past abuses by taking an active role through volunteer efforts.

Other Support Services

The international forestry staff at the national headquarters provides general administrative support by coordinating international forestry programs and activities with international organizations, foreign governments, other Federal departments and agencies, and nongovernmental groups. This staff monitors and manages all Forest Service foreign travel, arranges Forest Service participation in international meetings, represents the Chief and top staff in interagency meetings dealing with foreign forestry affairs, serves as liaison and principal contact point with foreign countries through their embassies and consulates, and cooperates with many associations and societies on international forestry matters.

Forest Service defense and emergency operations are coordinated within the State and private forestry staff but funded through general administration.

**Decrease
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Decrease</u>
	(Dollars in thousands)		
Program support \$	120,691	119,660	-1,031
FTE	4,472	4,172	-300

A decrease of \$1,031,000 is proposed from the 1988 base.

This reflects continuing efforts to reduce administrative support staffing through colocations, support sharing, reductions in Washington and Regional headquarters staffing and through greater efficiencies made possible through increased automation. The savings are partially offset by increases in personnel costs resulting from merit pay increases, GS employee step increases, and increased benefit costs.

A slight increase in travel is expected since centralizing administrative support creates the need for more travel to reach outlying units. A moderate increase in commercial transportation costs is also anticipated.

**Object class
information**

Salaries and benefits	-1,281
Travel	+250
Total.....	-1,031

Common Services

	1986 (Dollars in thousands)	1987	1988
Rents, communications, and utilities	\$ 39,610	\$ 40,759	\$ 41,649
Contractual services	10,300	10,500	8,900
Equipment and supplies	16,700	16,000	15,440
Office of Workers' Compensation Program	12,299	13,500	14,500
National Finance Center	20,314	20,259	21,300
Other USDA services	3,755	2,941	3,038
Total, common services	\$102,978	\$103,959	\$104,827

Objective To finance those nonpersonal services that support the general administration organization or that otherwise meet the definition of general administration in that they cannot be identified with a specific program.

Program description Rents and Utilities
These are space rentals and utilities for facilities owned or leased by the Forest Service. General administration is responsible for that portion occupied or used by general administration personnel and equipment. Total office space owned or leased by the Forest Service is 4 million square feet. In addition, nearly 4 million square feet is covered by the standard level user charge for which payment is made to GSA. General administration pays only for its share of that space.

Communications
Communication services funded in common services include the transmission of messages and data from place to place, e.g., contractual charges for radio and wireless telegraph service, telephone and telegraph services, switchboard charges, telephone installation costs, and rental of teletype equipment.

Postage and mail are included in the communications category. Forest Service policy is to classify mail at the lowest rate possible consistent with the mailer's need and to manage mail to provide the most effective, economical, and reliable service. Payment for postage and mail is based on the exact amount recorded by metered mail systems.

Contractual Services
This includes obligations for budget object class 25 (other services) except those that are otherwise specifically identified, such as the National Finance Center. Included are publication of notices, tuition, operation of facilities or other service contracts, storage of household goods, office equipment repair, maintenance contracts, and automated data processing (ADP) on-line retrieval services, other services, and supplies.

Equipment and Supplies
Most general office supplies are charged to general administration because they cannot be readily identified with the user at the time they are ordered.

Office of Workers' Compensation Program (OWCP)

Administered by the Department of Labor, this program provides compensation benefits to civilian employees of the United States for disability due to personal injury sustained while in the performance of duty or for work related illness. Benefits also are provided to dependents if the illness or injury results in the employee's death.

The Department of Labor bills agencies two years in arrears. The funds spent in FY 1988 will be for actual expenses incurred in 1986. When cases can be identified with the programs in which employees were working at the time of injury, the costs are charged directly to those programs. It is estimated that in FY 1988, approximately \$1 million in OWCP costs will be charged directly to program funds.

National Finance Center

This USDA service center provides payment and accounting services for agencies of the Department. The Forest Service obtains such services as complete administrative payment processing, payroll computation, payment, and related reports, plus required accounting records and financial reports. Using the revolving fund financing principle, the center establishes use rates to recover costs based on the volume of documents processed for each agency. The budget for the center is included and justified in the USDA and Related Agencies Appropriation Act.

Other USDA Services

This covers the miscellaneous services provided for the Forest Service by the Department. Examples are growth capital, video film center, printing plant, and the contract automation system. The costs are distributed to the agencies based on the volume of business generated by each agency.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Common services	\$ 104,787	104,827	+40

An increase of \$40,000 is proposed from the 1988 base.

Rents, communication, and utilities costs are expected to remain about the same. An \$828,000 increase in GSA space costs is included in the 1988 base. U.S. Postal Service costs will remain about the same, while Federal Telecommunication System (FTS) costs will increase by \$62,000.

Equipment and supplies costs will be reduced by \$560,000 primarily due to the phase-down of the forest level information processing system (FLIPS) equipment acquisition.

Contractural items for the general administration workforce will decrease by \$1,600,000.

The General Administration share of Office Of Workers' Compensation Program costs will increase by \$1,000,000.

National Finance Center costs will increase by \$1,041,000.

**Object class
information**

Salaries and benefits (OWCP).....	+1,000
Rents, communications, and utilities	+62
Other services	-462
Supplies, materials, and equipment	-560
Total	+40

NATIONAL FOREST SYSTEM

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1106-0-1-302				
Program by activities:				
Direct program:				
	1. Land and resource protection .	479,970	481,584	413,362
	2. Renewable resource management and utilization	427,860	440,814	378,368
	3. General administration	251,229	263,097	225,827
	Total direct program	1,159,059	1,185,495	1,017,557
	Reimbursable program	39,086	39,830	35,000
10.00	Total obligations	1,198,145	1,225,325	1,052,557
Financing:				
Offsetting collections from:				
11.00	Federal funds	-33,900	-34,545	-30,355
13.00	Trust funds	-5,185	-5,285	-4,645
17.00	Recovery of prior year obligations ...	-1,166	---	---
21.40	Unobligated balance available, start of year	-4,746	-4,741	-5,035
22.40	Unobligated balance transferred, net .	---	-14,798	---
24.40	Unobligated balance available, end of year	4,741	5,035	3,895
25.00	Unobligated balance restored	11,035	---	---
39.00	Budget authority	1,168,924	1,170,991	1,016,417
Budget authority:				
40.00	Appropriation	1,168,924	1,158,294	1,016,417
46.20	Transfer in for civilian pay raises ...	---	2,285	---
46.40	Transfer in for retirement contributions (P.L. 99-335)	---	10,412	---
Relation of obligations to outlays:				
71.00	Obligations incurred, net	1,159,059	1,185,495	1,017,557
72.40	Obligated balance, start of year	131,518	144,291	146,139
74.40	Obligated balance, end of year	-144,291	-146,139	-142,127
78.00	Adjustments in unexpired accounts ...	-1,166	---	---
89.00	Outlays	1,145,120	1,183,647	1,021,569
Outlays:				
90.00	Outlays, excluding pay and retirement supplementals	1,145,120	1,171,585	1,020,934
91.20	Outlays from civilian pay raise supplemental	---	2,171	114
91.40	Outlays from retirement contribution supplemental	---	9,891	521

NATIONAL FOREST SYSTEM

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1106-0-1-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	473,211	475,442	422,641
11.3	Other than full-time permanent	86,207	86,616	77,026
11.5	Other personnel compensation	45,891	46,084	40,977
11.8	Special personal service payments	7,707	7,775	6,925
11.9	Total personnel compensation	<u>613,016</u>	<u>615,917</u>	<u>547,569</u>
Personnel benefits:				
12.1	Civilian	92,823	93,262	82,913
13.0	Benefits for former personnel	10,799	10,850	9,645
21.0	Travel and transportation of persons ...	38,888	41,175	32,866
22.0	Transportation of things	11,578	12,259	9,785
23.1	Standard level user charges	16,762	15,330	17,934
23.2	Rental payments to others	15,568	16,484	13,158
23.3	Communications, utilities, and miscellaneous charges	43,844	46,423	37,056
24.0	Printing and reproduction	4,772	5,053	4,033
25.0	Other services	202,514	214,427	171,160
26.0	Supplies and materials	56,814	60,155	48,017
31.0	Equipment	42,732	45,245	36,115
32.0	Lands and structures	5,958	6,308	5,035
41.0	Grants, subsidies, and contributions ...	317	336	268
42.0	Insurance claims and indemnities	541	573	457
44.0	Refunds	<u>55</u>	<u>58</u>	<u>46</u>
99.0	Subtotal, direct obligations	1,156,981	1,183,855	1,016,057
99.0	Subtotal, reimbursable obligations ...	39,086	39,830	35,000
ALLOCATION TO BUREAU OF LAND MANAGEMENT				
99.0	Subtotal obligations, allocation accounts	<u>2,078</u>	<u>1,640</u>	<u>1,500</u>
99.9	Total obligations	<u>1,198,145</u>	<u>1,225,325</u>	<u>1,052,557</u>

NATIONAL FOREST SYSTEM

PERSONNEL SUMMARY

Identification code:	1986 actual	1987 est.	1988 est.
12-1106-0-1-302			
Direct:			
Total number of permanent positions	18,809	18,362	16,673
Total compensable workyears:			
Full-time equivalent employment	23,702	23,278	21,006
Full-time equivalent of overtime and holiday hours	2,307	2,266	2,045
Average ES salary	\$ 67,823	\$ 69,807	\$ 69,807
Average GS grade	9.76	9.76	9.76
Average GS salary	\$ 26,634	\$ 27,233	\$ 27,433
Average salary of ungraded positions	\$ 23,635	\$ 24,167	\$ 24,345
Reimbursable:			
Total number of permanent positions	156	152	137
Total compensable workyears:			
Full-time equivalent employment	233	228	206
Full-time equivalent of overtime and holiday hours	60	59	53
Average GS grade	9.87	9.87	9.87
Average GS salary	\$ 27,531	\$ 28,150	\$ 28,356
Allocation Accounts:			
Total number of permanent positions	32	25	25
Total compensable workyears:			
Full-time equivalent employment	34	27	27
Full-time equivalent of overtime and holiday hours	1	1	1
Average GS grade	9.76	9.76	9.76
Average GS salary	\$ 26,634	\$ 27,233	\$ 27,433

Construction

	1986 Actual	1987 Approp. Enacted to Date ^{1/}	1988 Base (Dollars	1988 Estimate in thousands)	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
Construction of facilities \$	26,853	25,332	--	15,894	-9,438	+15,894
FTE	162	154	--	118	-36	+118
Mount Elden Work Center \$	--	300	--	--	-300	--
FTE	--	--	--	--	--	--
Forest road construction \$	180,935	228,803	--	198,625	-30,178	+198,625
FTE	3,211	3,553	--	3,320	-233	+3,320
Highway Construction, Mount St. Helens National Volcanic Monument.....\$ ^{2/}	--	(9,915)	--	--	(-9,915)	--
FTE	--	--	--	--	--	--
Trail construction \$	6,866	7,301	--	7,024	-277	+7,024
FTE	127	128	--	120	-8	+120
Total, Construction \$	214,654	261,736	--	221,543	-40,193	+221,543
FTE	3,500	3,835	--	3,558	-277	+3,558

^{1/} The amounts shown do not reflect the proposed reprogramming of \$4,578,000 from Clear Creek in forest road construction to cover pay and FERS costs in FY 1987.

^{2/} Contract authority was made available in the 1987 Appropriations Act for construction. A 1987 supplemental has been submitted with the FY 1988 budget request to liquidate obligations incurred by the Forest Service.

Authorities

The Act of June 4, 1897, Organic Administration Act of 1897, as amended (16 U.S.C. 473).

Construction for administration, protection and management.

(05-96) 12-1103 302 SAGR HAGR

Such sums as appropriated; no expiration date.

P.L. 81-478, Granger-Thye Act of April 24, 1950 (16 U.S.C. 571c).

Section 1.

Erect buildings, lookout towers, and other structures on non-Federal land where a long term right of use is secured.

Such sums as needed; no expiration date.

P.L. 88-657, Act of October 13, 1964, National Forest Roads and Trail Systems Act (16 U.S.C. 535). P.L. 94-588, National Forest Management Act of 1976 (16 U.S.C. 472a). P.L. 93-378 Forest and Rangeland Renewable Resources Planning Act, as amended (16 U.S.C. 1601).

Section 4 (2).

Timber roads constructed by timber purchasers.

(05-96) 12-1103 302 SAGR HAGR

Such sums as appropriated; no expiration date.

P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a). Section 1.

Erection and leasing of buildings, structures and land from non-Federal sources.

Such sums as appropriated; no expiration date.

P.L. 90-543, National Trails System Act, October 2, 1968, as amended by

P.L. 98-11 (16 U.S.C. 1241-1251). Sections 7 and 10.

Land acquisition, exchange, donation. Management and assistance of the National Trails System.

Such sums as appropriated; no expiration date.

P.L. 95-307, Forest and Rangeland Renewable Resources Research Act,

June 30, 1978, as amended (16 U.S.C. 1643(a)). Section 3.

Construction.

Such sums as appropriated; no expiration date.

P.L. 95-619, National Energy Conservation Policy Act, November 9, 1978

(42 U.S.C. 8259). Section 549.

Retrofit of facilities for energy conservation.

Such sums as appropriated; expires January 1, 1990.

P.L. 96-581, Act of December 23, 1980, Section (b)(2).

Acquisition and construction of administrative facilities in Arizona.

05-96 12-5212-302 SENR HIIA

Such sums as appropriated from special receipt account; no expiration.

**Appropriation
Summary
Statement**

The Construction appropriation provides for acquiring, restoring, constructing, and improving buildings, utility systems, dams, recreation facilities, roads, bridges, trails, and other physical facilities. Land acquisition for administrative sites may be funded from this appropriation when it is a part of the total project costs.

Minor projects estimated to cost less than \$50,000 may be financed from regular benefiting program funds.

Facility Construction, Mount Elden Work Center

FY 1987 funding of \$300,000 for the Mount Elden work center provides for change orders, contract administration, and for items that had to be deleted from the construction contract because the value of the lands exchanged for the construction of the center was not high enough to pay for all the needed items. These funds were derived from the 1982 sale of 18.13 acres of NFS lands to the Flagstaff Medical Regional Center, Flagstaff, AZ. Funding will be used to make the center a workable, efficient work site and to replace facilities that were available at the Mount Elden Administrative Site which was purchased by the Flagstaff Medical Regional Center.

Highway Construction, Mount St. Helens National Volcanic Monument

Contract authority from the Highway Trust Fund was made available in the 1987 Continuing Resolution for road reconstruction on the Mount St. Helens National Volcanic Monument. Authority will be used to improve access and parking for visitors to the Monument. Existing roads are narrow (mostly single lane) and unsafe for the large numbers of people that are visiting the Monument.

The primary project will involve the 99 road. This is a major arterial route that provides access into the blast area of the volcano to the Windy Ridge overlook. It consists of reconstruction of 16.4 miles of a single-lane road to a double-lane paved standard road. The rest of the funds will be used for construction of local roads, parking areas and overlook turnouts that will also serve heavily used areas in the Monument and preconstruction engineering for future arterial road reconstruction. A 1987 supplemental has been submitted with the FY 1988 request to liquidate obligations incurred by the Forest Service.

Construction of Facilities

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)		
Research construction \$	642	340	--	608	+608
FTE	5	3	--	3	+3
Construction for fire, administrative, and other purposes \$	15,316	8,083	--	7,506	+7,506
FTE	65	59	--	50	+50
Recreation construction ... \$	10,895	16,909	--	7,780	+7,780
FTE	92	92	--	65	+65
Total \$	26,853	25,332	--	15,894	+15,894
FTE	162	154	--	118	+118

General

This program consists of constructing, replacing, and improving buildings and related facilities to support forest research, State and private forestry, and National Forest System (NFS) programs. Portable structures (trailers and modular units) that become an integral part of an administrative site are included in this program.

Research Construction

Objective To build and improve laboratory and other facilities needed to carry out the Forest Service research mission.

Program description Forest Service scientists are responsible for developing technology that improves productivity of the Nation's forests and rangelands.

To accomplish this task, scientists need facilities and equipment that are safe and commensurate with the type of research being performed. Adequate facilities allow greater depth in research investigations, eliminate unsafe working conditions, and permit consolidation yielding subsequent advantages.

Facilities are located to permit Federal scientists to interact with university scientists and to ensure a comprehensive, coordinated approach to problems. Research progress expected to accrue from adequate research facilities will increase productivity in forestry, provide for resource development and use, and conserve and protect the resource base.

Increase for 1988	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Research construction ... \$	--	608	+608
FTE	--	3	+3

A total of \$608,000 is proposed.

The FY 1988 program will continue to emphasize health and safety. This includes such projects as repair of electrical wiring systems, installation of fire and smoke alarm systems, renovation of sewage and water systems, and elimination of other health and safety hazards.

The proposed research construction projects are shown on the following page.

Object class information	Salaries and benefits	+94
	Travel	+18
	Transportation of things	+7
	Rent, communications, and utilities	+55
	Other services	+219
	Supplies, materials, and equipment	+74
	Land and structures	+141
	Total	+608

FY 1988

PROJECT LISTING

Research Construction

Health and Safety -- The following projects include chemical-flammable storage buildings, smoke detection systems and fire alarms, sprinkler systems, replacement of unsafe electrical wiring, rehabilitation of unsafe water systems, and the elimination of other health and safety hazards.

<u>Station</u>	<u>Location</u>	<u>Project</u>	<u>Cost</u> (Dollars in thousands)
Intermountain	MT, Missoula	Redesign laboratory for safe chemistry research	\$ 50
North Central	MN, St. Paul	Remove asbestos and reinsulate mechanical room	
	WI, Rhinelander	Install elevator	75
Northeast	CT, Ansonia	Sewer connection	
	OH, Delaware	Chemical storage building	60
Pacific Northwest	Stationwide	Reroof older facilities	60
Pacific Southwest	Stationwide	Planning and design services for outyear projects	
	CA, Arcata	Automatic fire suppression system for ADP space	
	CA, Placerville	Structural and electrical improvements to meet code	
	CA, Riverside	Electric wiring retrofit to meet code requirements	75
Rocky Mountain	AZ, Tempe	Replace headhouse roof	
	NM, Flagstaff	Emergency fire exits	
	SD, Rapid City	Repair parapet wall	
	SD, Rapid City	Replace walkway, improve drainage	
	WY, Laramie	Replace shop roof	75
Southeast	GA, Athens	Install personal showers for lab and pesticide workers	
	NC, Coweeta	Remove asbestos	
	NC, Research Triangle Park	Construct chemical storage building	
	SC, Charleston	Construct deceleration lane at entrance to facility	80
Southern	MS, Harrison	Remove/replace asbestos	
	MS, Gulfport	Upgrade electrical system	
	MS, Starkville	insulation on steam	
	MS, Stoneville	boiler lines	35
Forest Products Laboratory	Madison, WI	Complete installation of fire detection and alarm system and provide horizontal exits	98
		TOTAL	\$608

Construction for Fire, Administrative, and Other Purposes (FA&O)

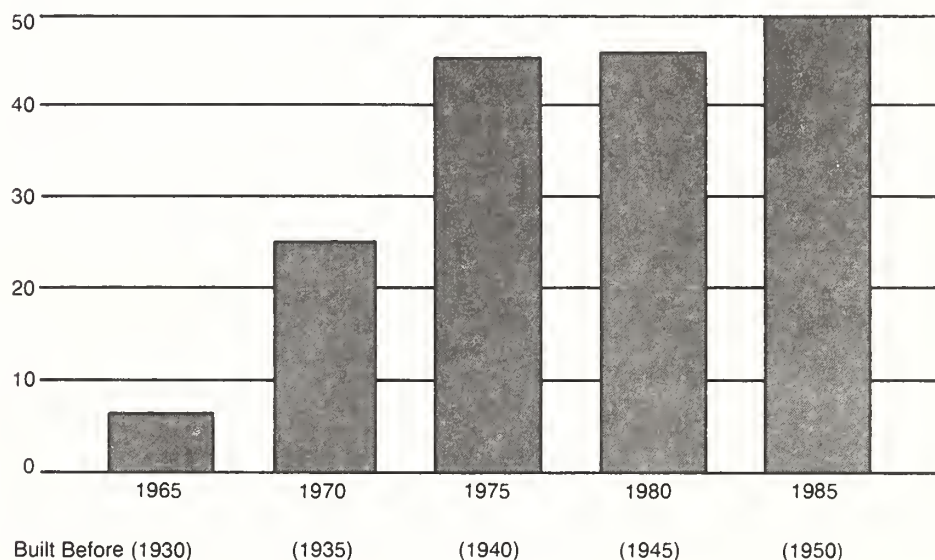
Objective

To replace, construct, and improve offices; employee housing; service and storage buildings; nursery buildings; airports; heliports; water, waste, and electrical systems; and similar utility systems for general administrative purposes. To acquire and improve administrative sites and other construction projects (except recreation and research facilities) in support of National Forest System and State and private forestry programs.

Program description

The FY 1988 program will emphasize facility planning, replacement, and rehabilitation. This emphasis is needed because about 46 percent of the 11,200 buildings and utility systems in use by the Forest Service were built before 1940. About 50 percent exceeded their structural and functional design life in 1985, as shown in the following chart, and are no longer cost effective because they need extensive maintenance.

Percent of FA&O Buildings Exceeding 35 Years' Age



¹ Average Design Life

Specific areas of construction emphasis will be:

- Health and safety--provide safe and healthy working conditions and living environments for employees and users of Forest Service facilities. This includes meeting drinking water and waste water disposal standards, providing facilities for proper use and storage of hazardous chemicals and flammables, replacing unsafe electrical wiring, and eliminating or reducing other health and safety hazards.

- Planning and design--carry out advance facilities planning and preliminary design for projects that could be constructed within the next 3 years. These projects support implementation of forest plans.

Two distinct planning steps are used to reduce the need to reprogram funds among projects: (1) Preliminary project analysis to evaluate location, investment level, and acquisition options, and to identify the most cost-effective, long-term combination; and (2) early determination of the best project option and scope to ensure that facilities requested are designed and completed on schedule and within budgets.

Emphasis is also placed on facility master planning. This ensures coordination at the forest level in managing and evaluating existing facilities, eliminating obsolete facilities that are no longer cost effective, and consolidating for more effective operation and control.

- Program support facilities--replace and construct facilities to furnish working and living space and to achieve resource production and protection targets. This support includes:

1. Fire management--provide lookouts, air attack facilities, fire management centers, and other facilities for fire suppression and presuppression.
2. Nursery and tree improvement building construction--construct, replace, and enlarge nursery and tree improvement buildings needed to meet tree seedling production levels for the 1980s and 1990s. This includes greenhouses, headhouses, storage buildings, offices, packing sheds, etc., and integral support systems of those buildings (sewer, electrical, and water systems), including underground irrigation systems.
3. Administrative facilities--provide service and storage facilities, offices, employee housing, and related administrative site improvements to meet program needs. Housing construction and replacement will be limited to providing family housing in isolated locations and seasonal housing in areas where recruitment of seasonal employees is hampered by lack of affordable private housing. Family housing will not be constructed in locations where such housing can be rented or purchased by the employee in the private sector at a reasonable cost. Efforts will be continued to replace older facilities where maintenance is uneconomical.
4. Equal opportunity support--provide facilities that will further the equal opportunity goals in the Forest Service's affirmative action plan. Retrofit present facilities where appropriate to provide access for the handicapped and equal facilities for women and men.
5. Energy conservation--retrofit existing facilities to improve their energy efficiency as required by the National Energy Conservation Policy Act, P.L. 95-619.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Fire, administrative, and other construction	\$ --	7,506	+7,506
FTE	--	50	+50

A total of \$7,506,000 is proposed.

Funding at this level will enable continued planning for future programs and permit a modest level of construction or reconstruction of the more critical high priority projects.

Unsafe or functionally obsolete facilities and high-cost facilities that can be replaced will receive primary consideration.

FA&O projects included in the FY 1988 program are listed on the following pages.

**Object class
information**

Salaries and benefits	+1,561
Travel	+210
Transportation of things	+86
Rent, communications, and utilities	+636
Other services	+2,526
Supplies, materials, and equipment	+861
Land and structures	+1,626
Total	+7,506

FY 1988
PROJECT LISTING
Construction for Fire, Administrative, and Other Purposes

<u>State</u>	<u>National Forest</u>	<u>Project</u>	Cost of Facilities Roads (Dollars in thousands)	
<u>Region 1--Northern Region</u>				
	Regionwide	Planning and design	\$ 232	--
		Total, Region 1	232	--
<u>Region 2--Rocky Mountain Region</u>				
	Regionwide	Planning and design	156	--
CO	Rio Grande	Saguache office	308	15
WY	Bighorn	Medicine wheel barracks and Big Goose TP and water	<u>320</u>	<u>--</u>
		Total, Region 2	784	15
<u>Region 3--Southwest Region</u>				
	Regionwide	Planning and design	100	--
AZ	Tonto	Pleasant Valley trailer pads	220	--
NM	Gila	Quemado office	419	60
NM	Lincoln	Smokey Bear warehouse	88	--
NM	Santa Fe	Coyote admin. site (Phase I)	<u>283</u>	<u>--</u>
		Total, Region 3	1,110	60
<u>Region 4--Intermountain Region</u>				
	Regionwide	Planning and design	<u>134</u>	<u>--</u>
		Total, Region 4	134	--
<u>Region 5--Pacific Southwest Region</u>				
	Regionwide	Planning and design	100	20
CA	Los Padres	Big Sur facilities (Phase I)	<u>1,250</u>	<u>200</u>
		Total, Region 5	1,350	220

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Cost of</u> <u>Facilities Roads</u> <u>(Dollars in thousands)</u>	
<u>Region 6--Pacific Northwest Region</u>				
	Regionwide	Planning and design	\$ 141	--
OR	Fremont	Bly ranger district crew quarters	84	--
OR	Ochoco	Rager ranger district water	53	--
OR	Rogue River	Star ranger district office addition	579	50
WA	Mt. Baker-Snoqualmie	Skykomish Crew Quarters	<u>167</u>	<u>8</u>
Total, Region 6			1,024	58
<u>Region 8--Southern Region</u>				
	Regionwide	Planning and design	308	--
AL	Talladega	Talladega ranger district office	253	43
NC	Croatan	Croatan ranger district office	<u>265</u>	<u>24</u>
Total, Region 8			826	67
<u>Region 9--Eastern Region</u>				
	Regionwide	Planning and design	60	5
	Regionwide	VST support project	100	--
IN	Hoosier	Brownstown office (Phase I)	212	--
WI	Chequamegon	Medford purchase	300	28
WV	Monongahela	Greenbrier office (Phase II)	<u>238</u>	<u>37</u>
Total, Region 9			910	70
<u>Region 10--Alaska Region</u>				
	Regionwide	Planning and design	87	--
AK	Chugach	Anchorage ranger district office (Phase I)	250	--
AK	Tongass	Craig ranger district office	<u>750</u>	<u>--</u>
Total, Region 10			<u>1,087</u>	<u>--</u>
Regional total			\$ 7,457	\$ 490
Washington office			<u>49</u>	<u>--</u>
TOTAL			<u>\$ 7,506</u>	<u>\$ 490^{1/}</u>

^{1/} This amount is funded from the Forest Road Construction appropriation.

Recreation Construction

Objective	To provide recreation opportunities appropriate to the forest setting. To repair and rehabilitate existing recreation facilities to meet health and safety standards, protect soil and water resources, improve economic efficiency, and sustain fee receipts.
Program description	<p>The recreation program emphasis is away from recreation facilities and toward more primitive settings. It is necessary, however, to construct new facilities and reconstruct or rehabilitate existing recreation facilities to meet public demand, provide for the health and safety of forest visitors, maintain basic resources of soil and water quality, preserve past capital investment, modify utility systems to reduce maintenance costs, and qualify certain facilities for user fees.</p> <p>Over \$500 million was invested in NFS recreation facilities in the 1960s. Facilities eventually wear out, become obsolete, or become inefficient. Older facilities remain but are beyond their design life. Many of these facilities are approaching or have reached the end of their designed life and must be reconstructed or replaced. Most needs are for water and sewer replacement, site restoration, and recreation dam repair.</p> <p>The Land and Water Conservation Fund Act (16 U.S.C. 4601) established standards that must be met before fees may be charged for the use of recreation facilities. Recreation facility reconstruction and replacement ensures that facilities where fees are charged will continue to meet these standards and thereby remain in the fee system.</p>

Increase for 1988	1988 Base	1988 Estimate	Increase
		(Dollars in thousands)	
Recreation construction .. \$	--	7,780	+7,780
FTE	--	65	+65

A total of \$7,780,000 is proposed.

Construction of recreation improvements will emphasize rehabilitation. This program is responsive to the priorities identified in the FY 1980 GAO audit of National Forest System recreation facilities and the RPA recommended program. The backlog of recreation construction and reconstruction needs at the end of FY 1986 was \$298 million, compared to \$248 million in FY 1980.

Proposed FY 1988 recreation construction projects are listed on the following pages.

Object class information	Salaries and benefits	+2,029
	Travel	+203
	Transportation of things	+83
	Rent, communication, and utilities	+617
	Other services	+2,443
	Supplies, materials, and equipment	+832
	Land and structures	+1,573
	Total	+7,780

FY 1988
PROJECT LISTING
Recreation Use Construction

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Cost of</u> <u>Facilities Roads</u> (Dollars in thousands)	
<u>Region 1--Northern Region</u>				
ID	Clearwater	Four trailheads	\$ 36	\$ 27
ID	Idaho Panhandle	Honeysuckle, Kit Price and Lake campgrounds	107	--
MT	Beaverhead	Antone trailhead, Wade Lake and Cottonwood campgrounds	48	25
MT	Custer	Big Ice Cave, Sioux sites	37	11
MT	Deerlodge	Piney Bay campground	65	13
MT	Flathead	Lost Johnny-Abbott and North trailheads	68	125
MT	Helena	Copper Creek and Helena trailheads	32	7
MT	Kootenai	McGillvary boat ramp	135	--
MT	Lewis and Clark	Marias Pass and Duper trailheads	63	153
MT	Nezperce	Rehabilitation projects	<u>64</u>	<u>32</u>
Total, Region 1			655	393
<u>Region 2--Rocky Mountain Region</u>				
	Regionwide	Regionwide planning, survey, and design	104	--
CO	Arapaho-Roosevelt	Toilet vault replacement and Brainard Lake road rehabilitation	259	290
CO	Grand Mesa, Uncompahgre, and Gunnison	Crag Crest trailhead toilet	12	--
CO	Pike and San Isabel	South Park toilet vaults and Manitou Park rehabilitation	152	265
CO	White River	Deep Lake campground rehabilitation and Officers Gulch group site	54	14

Exhibit 3 - Continued

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Cost of</u> <u>Facilities Roads</u> <u>(Dollars in thousands)</u>	
<u>Region 2--Rocky Mountain Region - Continued</u>				
CO	Rio Grande	Crestone well and Trujillo Meadows campground	\$ 70	\$ 40
CO	Routt	Salvonía trailhead	21	--
CO	San Juan	Chimney Rock observation tower and Upper Hermosa trailhead	76	--
SD	Black Hills	Centennial trail parking and Host power hookup and use conversion	57	--
WY	Bighorn	Three trailheads	43	212
WY	Medicine Bow	Rob Roy campground and Lakeview campground	<u>155</u>	<u>42</u>
Total, Region 2			1,003	863
<u>Region 3--Southwest Region</u>				
	Regionwide	Small projects, survey, and design	33	35
AZ	Apache-Sitgreaves	Rim Lake cul-de-sac's and Aspen campground	294	227
AZ	Coronado	Upper Madera Canyon picnic ground and Reef campground	299	89
AZ	Tonto	Bartlett Lake complex phase 1	65	65
NM	Carson	Cimarron campground	<u>149</u>	<u>32</u>
Total, Region 3			840	448
<u>Region 4--Intermountain Region</u>				
	Regionwide	Campground host wastewater facilities	63	--
	Regionwide	Advance survey and design	134	20
CA	Toiyabe	Lower Twin Lake campground and angler parking	33	121
UT	Dixie	Spruces campground rehabilitation	110	--
UT, ID	Wasatch-Cache and Boise	Water and sanitation rehabilitation	<u>50</u>	<u>30</u>
Total, Region 4			390	171

Exhibit 3 - Continued

<u>State</u>	<u>National Forest</u>	<u>Project</u>	<u>Cost of</u> <u>Facilities Roads</u> <u>(Dollars in thousands)</u>	
<u>Region 5--Pacific Southwest Region</u>				
	Regionwide	Small projects and concluding contract administration	\$ 88	\$ --
CA	Eldorado	Icehouse sanitation	145	--
CA	Klamath	Kangaroo Lake rehabilitation	85	80
CA	San Bernardino	Heart Bar complex	<u>365</u>	<u>675</u>
Total, Region 5			683	755
<u>Region 6--Pacific Northwest Region</u>				
	Regionwide	Small projects, survey and design	78	40
ID	Wallowa-Whitman	Hells Canyon Creek rehabilitation and Pittsburg Landing phase 1	485	273
OR	Malheur	Magone Lake rehabilitation	168	60
OR	Siuslaw	Cape Perpetua Interpretive Site and Horsefall and Sutton campground rehabilitation	673	378
OR	Umpqua	South shore Diamond Lake rehabilitation	216	166
OR	Wallowa-Whitman	Phillips Reservoir rehabilitation	51	--
OR	Winema	Aspen Point, Fourmile rehabilitation	58	22
WA	Gifford Pinchot	Mt. St. Helens projects	572	207
WA	Mt. Baker-Snoqualmie	Heather Meadows phase 2	289	174
WA	Olympic	Big Creek and Brown Creek rehabilitation	74	--
WA	Wenatchee	Kachess and Salmon LaSac rehabilitation and Eightmile, Entiat rehabilitation	<u>270</u>	<u>132</u>
Total, Region 6			2,934	1,452
<u>Region 8--Southern Region</u>				
GA	Chattahoochee-Oconee	Anna Ruby Falls toilet	231	--
LA	Kisatchie	Corney Lake dam rehabilitation	55	--
MS	National Forests in Mississippi	Big Biloxi water and sanitation	<u>148</u>	<u>--</u>
Total, Region 8			434	--

Exhibit 3 - Continued

State	National Forest	Project	Cost of	
			Facilities	Roads
			(Dollars in thousands)	
Region 9--Eastern Region				
	Regionwide	Survey and design FY 1989 projects	\$ 122	\$ 96
MN	Superior	BWCA toilet replacement, BWCA "Wolf Center" reconstruction, Fall Lake dam reconstruction, and BWCA access roads and surfacing	390	925
NH	White Mountain	Ammonoosuc Ravine trailhead and Forest Lagoon reconstruction	62	24
PA	Allegheny	Webb's Ferry road surfacing	--	29
WI	Chequamegon	Mondeaux dam structure repair	<u>44</u>	<u>--</u>
		Total, Region 9	618	1,074
Region 10				
	Regionwide	Survey and design	32	--
AK	Tongass-Ketchikan	K15 campground and Information displays	176	--
AK	Tongass-Sitkine	Anan bear observatory	<u>12</u>	<u>--</u>
		Total, Region 10	220	--
		Regional total	7,777	5,156
		Washington Office	<u>3</u>	<u>--</u>
		TOTAL	<u>\$7,780</u>	<u>\$5,156</u> <u>1/</u>

^{1/} This amount is funded from forest road construction.

Forest Road Construction

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)		
Forest road construction .. \$	180,935	228,803	--	198,625	+198,625
Miles	1,252	1,960 ^{1/}	--	1,416	+1,416
FTE	3,211	3,553	--	3,320	+3,320

^{1/} Mileage reflects an update from field data based on FY 1987 allocation.

Objective To provide a transportation network at the lowest overall cost of construction, operation, and maintenance. To develop this transportation network in an orderly manner to accommodate the annual resource outputs identified in the budget.

Program description Several types of roads, financed in a variety of ways, serve resource management and use of the National Forest System:

Types of Roads

- Forest Highways. Forest highways are public roads, maintained by State or local governments, that link the Federal-Aid Highway System and forest roads. Forest highways are financed through the Federal Highway Act from the Federal Highway Trust Fund and administered by the Federal Highway Administration (FHWA). Priorities for project selection are set by agreement among the States, Forest Service, and FHWA.



Forest highways serve both forest management needs and the needs of local communities adjacent to forest lands. These are traditionally two-lane roads built to State and Federal standards.

- Forest Roads. The Forest Service transportation system consists of forest arterial roads, forest collector roads, and forest local roads.



Forest arterial roads serve large land areas and usually connect with public highways or other arterial roads to form a network of primary travel routes. Location and standards for these roads are often determined by the need for travel mobility and efficiency rather than by specific resource needs.



Forest collector roads serve smaller land areas and are usually connected to a forest arterial or public highway. These roads collect traffic from forest local roads. Location and standards are determined by long term resource needs and travel efficiency.



Forest local roads connect terminal facilities such as log landings and recreation sites, with forest collector roads, forest arterial roads, or public highways. Location and standards are determined by the specific resource needs that the roads serve.

Arterial and collector roads are generally in place. Although few new roads of these types are planned for construction, existing arterial and collector roads are regularly planned for reconstruction to restore original traffic service levels, correct existing safety hazards, or accommodate increased traffic volumes.

Most forest planning for future transportation systems focuses on local road construction and reconstruction. These roads are generally less than 3.0 miles long, of minimum standard, and serve a single resource.

Sources of Funding for Road Construction Programs

Survey, design, and engineering costs are funded in the forest road program or, for salvage sales, in the salvage sale fund. Actual construction of forest roads may be financed under any of three programs--the purchaser credit program (PCP), the purchaser election program (PEP), or the forest road program (FRP). However, the purchaser credit and purchaser election programs usually fund construction only of forest collector or forest local roads.

- Purchaser credit program (PCP). Under this program timber sale contracts require the purchaser to construct roads needed to remove the timber purchased. There is no appropriation for PCP roads. Instead, the amount of timber sales revenue received by the U.S. Treasury is reduced by an amount equal to the cost of PCP roads.

Construction under the PCP is accounted for outside of the Forest Service budget, but Congress sets a limit each fiscal year.

All costs in support of the PCP, such as survey, design, and construction engineering, are included in FRP financing. Since funding for the PCP reflects only construction and reconstruction costs, it is directly related to the timber sales program for the current year.

For additional information, see "Timber Purchaser Road Construction (PCP)."

- Purchaser election program (PEP). Under this program, small business timber purchasers (except in Alaska) may elect, when the timber sale contract is awarded, to have the Forest Service finance and construct any roads required by the sale, provided that the cost of road construction exceeds \$20,000. Funding levels are determined by the volume of timber to be offered in the current year and the projected trend of purchasers electing to have the Forest Service construct roads.

As with the PCP, the PEP funds can be used only for construction and reconstruction; funds for survey, design, and construction engineering come from the FRP.

For additional information, see the section "Timber Purchaser Roads Constructed by the Forest Service (PEP)" under Permanent Appropriations--Working Funds.

- Forest road program (FRP). This program finances multipurpose road systems on or adjacent to national forests and--because the purchaser credit and purchaser election programs finance construction or reconstruction only--planning, management, and project engineering costs for PCP and PEP as well. Most road construction funds are usually spent on roads needed for access to timber. These roads will also provide access for fishing, hunting, recreation, fire suppression, and other forest management and protection activities.

About 2 percent of the FY 1986 funding for FRP was programmed for recreation roads, primarily interior campground roads and short access roads to recreation sites. About 2 percent was budgeted for all-purpose and facility access roads built in conjunction with fire, administrative, and other construction (FA&O) projects.

Under the FY 1988 program, about 6 percent is programmed for recreation and general purpose roads. Most is in reconstruction, which reflects the growing backlog of rehabilitation needs in recreation and general purpose roads resulting from sustained high use by the public. These roads are concentrated in high-use areas and are generally higher standard (paved or gravel surfaced).

The following table shows how FRP funds were spent in FYs 1986 and 1987, and how they will be spent in FY 1988. It also shows the relationship between FRP, PCP, and PEP funding. The descriptions of cost areas (on the following page) describe the costs involved in each category.

Forest Road Program Fund Breakdown 1/

Cost Area	1986 Budget			1987 Budget		1988
	President's Budget Request	Allocated Based on Appropriation	End-of-2/ Year Obligations (Dollars in thousands)	President's Budget Request	Allocated Based on Appropriation	President's Budget Request
Forest roads and bridges constructed by PCP and PEP: 3/						
Construction	(213,211) 4/	(75,755)	(59,943)	(79,474)	(74,249)	(76,468)
Reconstruction		(42,062)	(37,749)	(44,787)	(44,746)	(52,761)
FRP support to PCP and PEP:						
Planning and mgmt.	36,049	37,706	34,994	36,646	32,990	32,808
Preconstruction engineering	54,495	42,679	38,562	42,124	42,953	41,129
Construction engineering	23,854	22,133	19,130	22,546	17,795	20,513
Augmentation 5/	7,010	2,873	2,485	4,191	3,075	2,875
Subtotal	121,408	105,391	95,171	105,507	96,813	97,325
Forest roads and bridges constructed by the Forest Service:						
Planning & mgmt.	16,207	21,007	23,735	18,661	22,198	17,945
Preconstruction engineering	10,528	7,791	10,136	7,123	15,073	13,610
Construction engineering	7,018	5,770	6,398	4,663	8,191	6,927
Construction	24,493	20,679	17,491	24,208	30,817	25,030
Reconstruction	15,908	20,677	26,548	18,323	55,711	37,788
Subtotal	74,154	75,924	84,308	72,978	131,990	101,300
TOTAL	195,562	181,315 6/	179,479	178,485 7/	228,803	198,625

1/ This table reflects the format for the forest road program (FRP) fund breakdown as recommended by the General Accounting Office (B-214182), dated February 14, 1984.

2/ Includes \$180,935,000 appropriated and \$2,402,000 carried forward from FY 1985, with \$3,858,000 carried forward to FY 1987.

3/ Dollars shown in parentheses are for PCP and PEP. Construction costs of the purchaser credit and purchaser election programs are not funded by the FRP appropriation.

4/ Separate data not available.

5/ Breakdown between construction and reconstruction is not available.

6/ Data reflects the 5/15/86 update furnished the House Appropriation Subcommittee at their request and printed in the Hearing Record for FY 1987 - p. 1365.

7/ Data reflects the 5/15/86 update furnished the Senate Appropriation Subcommittee at their request.

Forest Road Program Funds Description of Cost Areas

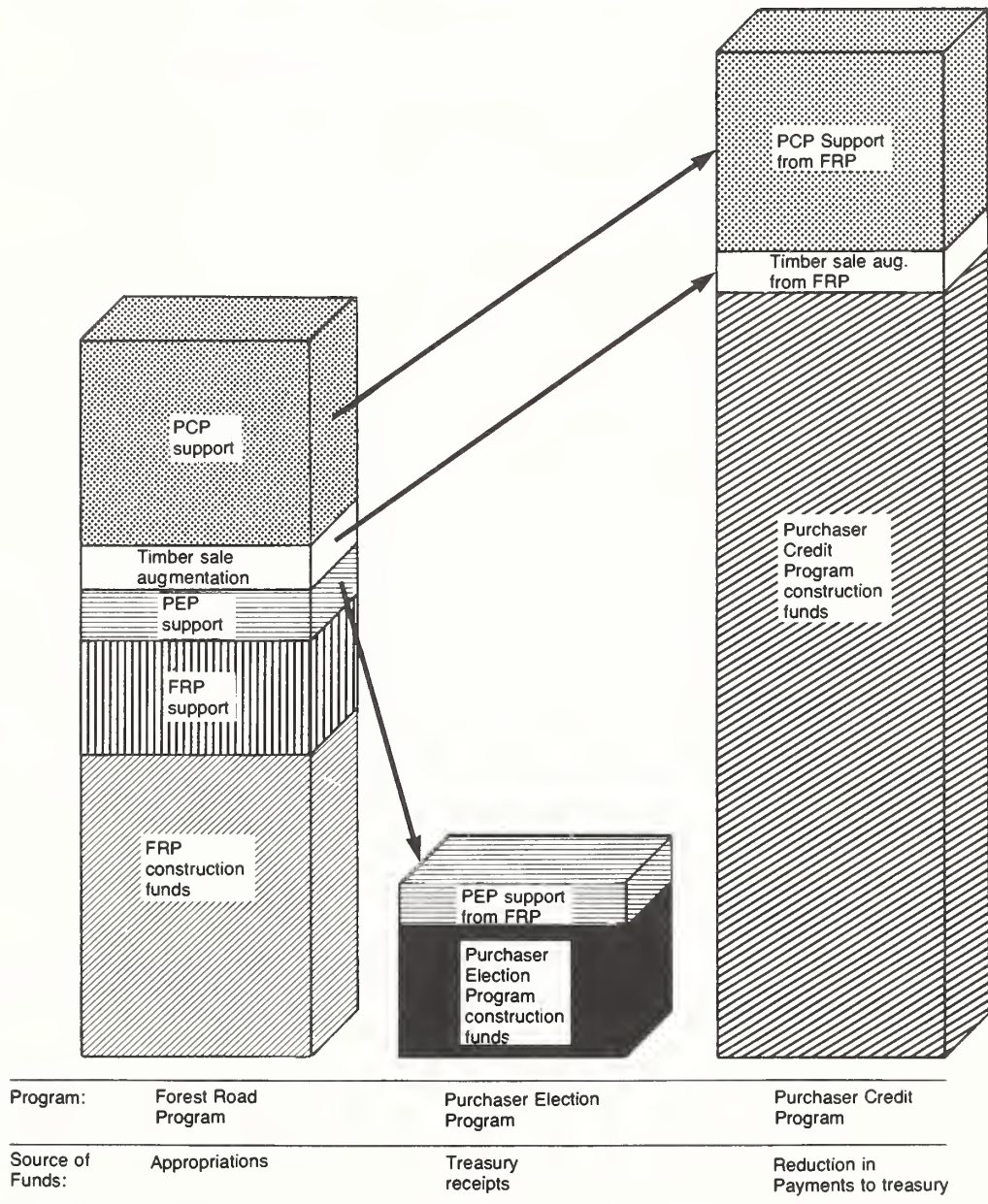
- Planning and management--the management costs of the three programs, including non-personnel costs in addition to transportation planning necessary for forest planning. This activity also includes common service items such as rents, utilities, communication, mail, non-project computer costs, and worker's compensation.
- Preconstruction engineering--the location, survey, design, and preparation of construction plans for roads to be constructed or reconstructed. The work is performed through a combination of in-house personnel and engineering contractors.
- Construction engineering--the work needed to control road construction after a contract has been awarded (including construction staking and inspection of work), to ensure contract compliance and correct payment for work performed.
- Construction and reconstruction--the actual cost of constructing and reconstructing roads and bridges. The bridge replacement program is a continuing effort resulting from the National Bridge Safety program, which identifies structures currently not meeting safety requirements for highway roads. Road reconstruction encompasses both improving existing roads to a higher standard and restoring roads to the standard to which they were originally built. Surface rock replacement is financed from these funds. Rights-of-way acquisition is also included in these costs.
- Augmentation--additional FRP funds added to PCP and PEP, to satisfy the following situations:
 - (1) Where a specific road standard is higher than necessary to remove timber from a proposed sale. These funds represent the differences in construction costs between the road required for timber removal and the higher standard road necessary for other resource uses.
 - (2) Where the timber value is too low to provide the minimum return to the U.S. Treasury (base rates). Funds may be used to finance a portion of the road costs up to 50 percent of the normal profit margin as determined by Forest Service appraisal. This ensures an even flow of timber in depressed market conditions to communities that depend on NFS timber for economic stability.

The funding for these activities is displayed in the table on the previous page. The distribution of proposed expenditures reflects the reoffer of 2.7 BBF (part of the 9.7 BBF returned under the Federal Timber Contract Payment Modification Act of 1984) where road construction is complete or partially complete.

The following chart displays how FRP funds are used to support the PCP and the PEP programs.

Typical Breakout of Forest Road Program

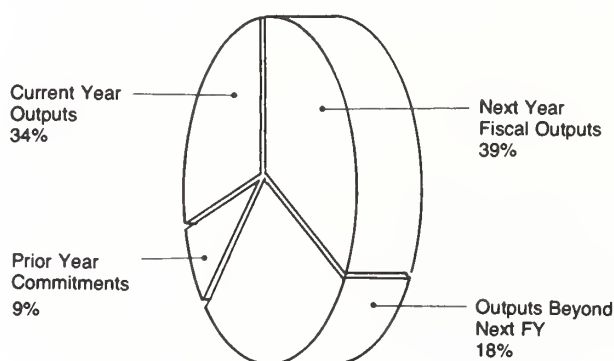
Dollars for Support of FRP, PCP, PEP
Programs and Residual Available for Construction



Note: Support costs include road planning and management, preconstruction engineering, and construction engineering.

The funding needs of the forest road program are not directly proportional to resource outputs for the same year. Road planning, location, design, rights-of-way purchase, contract preparation, contract administration, and followup inspection activities for a specific road or timber sale are carried out over 1 to 5 years in a sequence necessary to sustain the orderly flow of goods and services (primarily timber) from the forest. Therefore, FRP funding in a given year will pay for construction activities tied to resource outputs in the previous year, current year, and several succeeding years. The following chart displays the breakdown of FY 1987 FRP funds by benefiting years:

Breakdown of FY 1987 FRP Funds by Benefiting Years



Road construction needs are identified through transportation planning completed as part of the forest plan. These plans specify the location of arterial and collector roads, a 10-year timber harvest program, and the need for local roads based on resource management activities.

As the year of construction approaches for specific projects (such as timber sales or recreation site developments), planning describes the precise location and standards of roads needed for the project. Within the timber sale program, decisions are made 3 to 4 years in advance of the sale whether specific roads will be constructed by the timber purchasers through the PCP or by public works contracts in advance of sale offerings.

Construction of roads is financed by the FRP under any of the following conditions:

- The standard of the road is greater than required to remove timber from the proposed sale. Arterial and collector roads sometimes serve multiple resources and require higher standards.
- Total cost of a specific road is too high to be reasonably borne by the timber purchaser in special situations, for example, access into an area with an insect infestation. The timber management objective is to salvage the timber and quell the infestation. The low value timber will not support the roads required to accomplish these objectives.
- When more than one timber sale will be hauled over a proposed road at the same time, the road is built in advance from FRP funds, to avoid having one operator become dependent on the other for timely completion of construction.

Three-year Summary of Road Construction Program ^{1/}
(Dollars in thousands)

	FY 1986		FY 1987		FY 1988	
	Actual		Appropriated		President's	
	\$	Miles	\$	Miles	\$	Miles
Forest road program (FRP) ^{2/}	179,479		228,803		198,625	
Construction		452		753		369
Reconstruction		800		1,207		1,047
Purchaser credit program (PCP) ^{4/}	91,474		110,770		117,799	
Authorized		1,916		2,137		2,373
Construction		2,992		3,138		3,271
Reconstruction						
Purchaser election program (PEP)	(22,911)		(15,434)		(21,037)	
Authorized						
Planned	6,218		8,225		11,430	
Construction		117		211		266
Reconstruction		140		223		283
Total	\$ 277,171		347,798		327,854	
Construction		2,485		3,101		3,008
Reconstruction		3,932		4,568		4,601
Total miles		6,417		7,669		7,609

^{1/} Since FRP funds are also used to provide engineering support to the PEP and PCP programs, cost per mile comparisons of the three programs or three years are not valid.

^{2/} Projects are counted as outputs in the fiscal year the timber sale contract is awarded.

^{3/} Includes \$180,935,000 appropriated and \$2,402,000 carried forward from FY 1985, with \$3,858,000 carried forward to FY 1987.

^{4/} Projects are counted as outputs in the year the bid for the timber sale contract is awarded.

^{5/} Latest estimate of actual needs. This appropriation limitation is based on the legislative authority of P.L. 97-100 rather than through appropriation language. No new limitation authority was required as sufficient prior year limitation balances were available for use in FY 1987.

^{6/} Miles are based on planned expenditures for purchaser election program.

Road Costs Per Mile

Efforts continue to reduce the unit cost of roads. Savings have been realized by reducing road standards (i.e., width, alignment, base, and surfacing) and by reducing contract prices through increased bidding competition.

In most cases, lowering road standards means that traffic must be managed to reduce potential conflicts in road use. For example, recreation use of forest roads may be prohibited during peak use by commercial logging trucks.

Road costs per mile vary widely, depending on such factors as standards, amount of rock excavation, method of contracting, and topography. For comparison, following is the range of cost per mile for the three programs used to finance road construction in FY 1986.

AVERAGE CONSTRUCTION AND RECONSTRUCTION COSTS PER MILE

	Regional Range	
	Construction	Reconstruction
	(Dollars in thousands)	
Forest road program (FRP)	\$21.7 - 167.0	\$19.4 - 64.8
Purchaser credit program (PCP)	9.9 - 65.0	5.8 - 15.5
Purchaser election program (PEP)	3.3 - 208.6	2.3 - 54.1

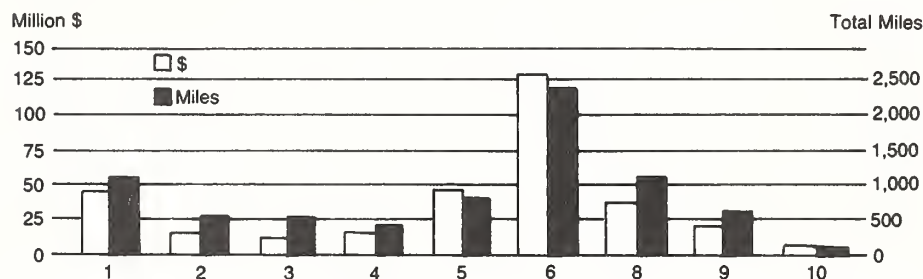
Costs-per-mile in the forest road program (FRP) are higher than in other programs because FRP projects are the high-cost roads beyond the scope of the purchaser to construct. These are primarily arterial and collector roads, which often include permanent surfacing and can be two lanes wide. Also, most bridges are built from FRP funding, and their costs add to total costs of the road program.

PCP roads are primarily local and collector roads, with surfacing varying from native material to crushed stone. Estimates for their cost do not include a minimum wage requirement (Davis-Bacon). PEP costs per mile are higher than PCP for the same roads because PEP unit costs include provision for a minimum wage requirement.

The following charts show the estimated regional costs and outputs for the total road construction program for FY 1987 and the cost per mile by region.

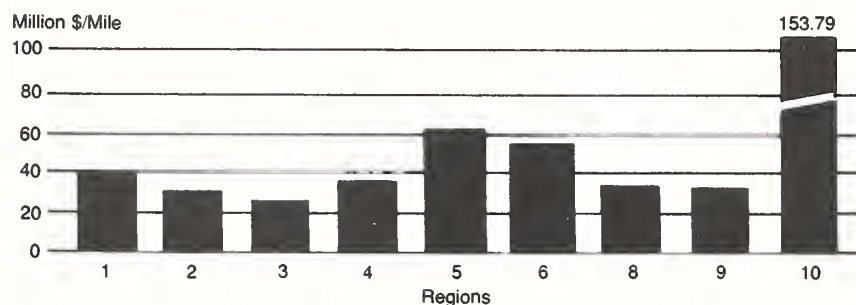
Road Program—\$ and Miles by Region-FY 1987

(FRP + PEP + PCP)



Road Program—Cost Per Mile by Region-FY 1987

Total \$ (FRP + PC + PE)/Total Miles



* The major portion of the R-10 program is the construction of bridges which results in high unit costs based on the road miles constructed and reconstructed.

The Forest Service is developing plans and procedures to achieve the 5-percent reduction in average cost per road mile compared to FY 1985 as directed in the FY 1987 Appropriations Bill. Actual FY 1986 and 1987 data will be displayed in the Report of the Forest Service-Fiscal Year 1987.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Forest road construction	\$ --	198,625	+198,62
FTE	--	3,320	+3,320

A total of \$198,625,000 is proposed.

This funding level provides for the construction and reconstruction of 1,416 miles (369 miles construction, 1,047 miles reconstruction) of roads and the construction or major repair of 75 bridges.

In addition, these funds will be used to support the management, planning, preconstruction and construction engineering for the FRP, PCP, and PEP.

In FY 1988 an estimated 6,193 miles of road will be constructed or reconstructed through the PCP and PEP.

This funding level is commensurate with the FY 1988 11.1 BBF timber offer, which includes an estimated 2.7 BBF of reoffered timber.

Both the mileage to be constructed or reconstructed through FRP and the support described are essential in sustaining a future timber offer volume of 11.1 BBF per year.

**Object class
information**

Salaries and benefits	+103,650
Travel	+3,354
Transportation of things	+1,370
Rent, communications, and utilities	+10,186
Other services	+40,349
Supplies, materials, and equipment	+13,743
Land and structures	+25,973
Total	+198,625

Timber Purchaser Road Construction (PCP)

Objective To construct timber sale roads through timber operators.

Program Description The Forest Service road construction program includes construction and reconstruction performed by timber operators through timber sale contract requirements. Timber operators earn timber credits, thereby reducing the amount they must pay for the timber.

Increase for 1988	1988 <u>Base</u>	1988 <u>Estimate</u>	<u>Increase</u>
	(Dollars	in thousands)	
Timber purchaser road construction (PCP)	\$		
FTE	--	117,799	+117,799
	--	--	--

A total of \$117,799,000 is proposed.

This program level provides for the construction or reconstruction by purchasers of 5,644 miles of road necessary to support the 11.1 BBF timber offer volume.

Timber Purchaser Roads Constructed by the Forest Service (PEP)

Objective To construct timber sale roads, through competitive bidding, for small business purchasers who elect to have the roads constructed by the Forest Service.

Program description The purchaser election program (PEP) is a part of the financing for the total Forest Service annual road program. For a road to qualify, construction costs for roads exceeding \$20,000 must be included in the timber sale contract and the purchaser must be classified as a small business operator. PEP is available to all locations in the National Forest System except those in Alaska.

For additional information, see the section Timber Purchaser Roads Constructed by the Forest Service under Permanent Appropriations--Working Funds.

Trail Construction

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)	(thousands)	
Trail construction	\$ 6,866	7,301	--	7,024	+7,024
Miles	1,092	730	--	543	+543
FTE	127	128	--	120	+120

Objective To increase the opportunities for trail-related recreation and provide access to the National Forests for administration and management.

Program description This program funds survey, design, construction, and reconstruction of trails on the National Forests. Priority is given to reconstruction of trails that have become substandard as a result of age, heavy use, or lack of maintenance.

Reconstruction often includes replacing bridges, developing trailhead facilities to accommodate vehicles, and changing existing trails for new uses such as handicapped trails. The costs of such facilities can substantially increase construction unit costs because they generate costs but do not generate miles of work. They are, however, critical to recreation trail use.

Trails are vital to increasing the supply of cost-effective recreational opportunities. Trails offer the public access to the National Forest with a minimal investment.

See the trail maintenance section in the National Forest System appropriation for additional discussion of the trails program.

Increase for 1988	1988 Base	1988 Estimate	Increase
		(Dollars in thousands)	
Trail construction	\$ --	7,024	+7,024
Miles	--	543	+543
FTE	--	120	+120

A total of \$7,024,000 is proposed.

The proposed level of funding provides for priority construction and reconstruction of 543 miles of trails necessary to accommodate increased recreation use, prevent resource damage, allow for the increased costs of trail construction in new wilderness areas, and to handle costs for volunteer assistance under provisions of Section 11 of the National Trails System Act.

Object class information	Salaries and benefits	+2,703
	Travel	+156
	Transportation of things	+52
	Rent, communications, and utilities	+70
	Other services	+2,105
	Supplies, materials, and equipment	+646
	Land and structures	+1,292
	Total	+7,024

CONSTRUCTION

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1103-0-1-302				
Program by activities:				
Direct program:				
	1. Construction of facilities ...	26,825	33,695	16,243
	2. Road and trail construction ..	184,111	233,210	210,197
	3. Pollution abatement	160	202	165
	4. Land acquisition	36	45	37
	5. Mt. St. Helens timber salvage	5	3	2
	6. Mt. Elden Work Center	---	300	---
	Total direct program	211,137	267,455	226,644
	Reimbursable program	3,170	4,200	3,500
10.00	Total obligations	214,307	271,655	230,144
Financing:				
Offsetting collections from:				
11.00	Federal funds	-1,318	-1,765	-1,439
14.00	Non-federal sources	-1,852	-2,435	-2,061
21.40	Unobligated balance available, start of year	-19,036	-22,553	-16,834
24.40	Unobligated balance available, end of year	22,553	16,834	11,733
40.00	Appropriation	214,654	261,736	221,543
Relation of obligations to outlays:				
71.00	Obligations incurred, net	211,137	267,455	226,644
72.40	Obligated balance, start of year ...	133,235	91,164	112,370
74.40	Obligated balance, end of year	-91,164	-112,370	-105,834
90.00	Outlays	253,208	246,249	233,180

CONSTRUCTION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-1103-0-1-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	81,506	90,890	83,821
11.3	Other than full-time permanent	8,178	9,099	8,375
11.5	Other personnel compensation	1,210	1,346	1,263
11.8	Special personnel service payments	68	88	75
11.9	Total personnel compensation	90,962	101,423	93,534
Personnel benefits:				
12.1	Civilian	12,779	14,249	13,141
13.0	Benefits for former personnel	984	1,097	1,012
21.0	Travel and transportation of persons ...	3,079	4,457	3,487
22.0	Transportation of things	1,202	1,740	1,361
23.1	Standard level user charges	2,970	2,745	3,204
23.2	Rental payments to others	2,304	3,335	2,609
23.3	Communications, utilities, and miscella- neous charges	3,711	5,371	4,202
24.0	Printing and reproduction	688	996	779
25.0	Other services	42,429	61,414	48,054
26.0	Supplies and materials	6,854	9,921	7,762
31.0	Equipment	7,017	10,157	7,947
32.0	Lands and structures	34,104	49,363	38,624
41.0	Grants, subsidies, and contributions ...	2	3	2
42.0	Insurance claims and indemnities	499	722	565
44.0	Refunds	319	462	361
99.0	Subtotal direct obligations	209,903	267,455	226,644
99.0	Subtotal, reimbursable obligations ...	3,170	4,200	3,500
ALLOCATION TO FEDERAL HIGHWAY ADMINISTRATION				
99.0	Subtotal, obligations allocation accounts	1,234	---	---
99.9	Total obligations	214,307	271,655	230,144

CONSTRUCTION

PERSONNEL SUMMARY

Identification code:	1986 actual	1987 est.	1988 est.
12-1103-0-1-302			
Direct:			
Total number of full-time permanent positions.....	3,076	3,349	3,128
Total compensable workyears:			
Full-time equivalent employment	3,447	3,778	3,505
Full-time equivalent of overtime and holiday hours	39	42	39
Average ES salary	\$ 67,823	\$ 69,807	\$ 69,807
Average GS grade	9.98	9.98	9.98
Average GS salary	\$ 28,217	\$ 28,852	\$ 29,064
Average salary of ungraded positions	\$ 23,664	\$ 24,196	\$ 24,374
Reimbursable:			
Total number of full-time permanent positions	38	41	39
Total compensable workyears:			
Full-time equivalent employment	53	57	53
Full-time equivalent of overtime and holiday hours	2	2	2
Average GS grade	9.51	9.51	9.51
Average GS salary	\$ 24,817	\$ 25,375	\$ 25,562
Allocation Accounts:			
Total number of full-time permanent positions	10	---	---
Total compensable workyears:			
Full-time equivalent employment	11	---	---
Full-time equivalent of overtime and holiday hours	1	---	---
Average GS grade	9.98	---	---
Average GS salary	\$ 28,217	---	---

HIGHWAY CONSTRUCTION: MOUNT ST. HELENS NATIONAL VOLCANIC MONUMENT

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-8029-0-7-401				
10.00	Total obligations	---	9,915	---
	Financing:			
49.00	Contract authority	---	9,915	---
Relation of obligations to outlays:				
71.00	Obligations incurred, net	---	9,915	---
	Obligated balance, start of year:			
72.49	Contract authority	---	---	4,323
	Obligated balance, end of year:			
74.49	Contract authority	---	-4,323	-813
90.00	Outlays	---	5,592	3,510

OBJECT CLASSIFICATION (in thousands of dollars)

Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	---	749	---
11.3	Other than full-time permanent	---	92	---
11.9	Total personnel compensation	---	841	---
Personnel benefits:				
12.1	Civilian	---	118	---
13.0	Benefits for former personnel	---	9	---
21.0	Travel and transportation of persons ...	---	270	---
22.0	Transportation of things	---	105	---
23.2	Rental payments to others	---	45	---
23.3	Communications, utilities, and miscella- neous charges	---	482	---
24.0	Printing and reproduction	---	60	---
25.0	Other services	---	3,713	---
26.0	Supplies and materials	---	600	---
31.0	Equipment	---	614	---
32.0	Lands and structures	---	2,986	---
42.0	Insurance claims and indemnities	---	44	---
44.0	Refunds	---	28	---
99.9	Total obligations	---	9,915	---

Note: Personnel totals included in the Forest Service Construction appropriation.

Land Acquisition

	1986 <u>Actual</u>	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)			
Land and Water Conservation Fund (L&WCF)	\$ 31,356	49,236 ^{1/}	--	3,907	-45,329	+3,907
Columbia River Gorge	\$ --	3,000	--	--	-3,000	--
Total	\$ 31,356	52,236	--	3,907	-48,329	+3,907
Acres acquired	44,445	78,150	--	--	-78,150	--
FTE	82	81	--	80	-1	+80

^{1/} The amount shown does not reflect the proposed transfer of \$27,070,000 from prior year unobligated balances to the Forest Research and National Forest System appropriations to cover pay and FERS costs. Also not shown is the proposed rescission of \$42,430,000 from FY 1987 budget authority and \$6,600,000 from prior year unobligated balances.

Appropriation Summary Statement

The Land and Water Conservation Fund Act of September 3, 1964, (78 Stat. 897, as amended; 16 U.S.C. 4601-4 to 4601-11) provides funding for the acquisition of recreation lands and interests. The acquisitions are made under authorities of various acts and provide for high-priority outdoor recreation opportunities within the National Forest System.

In the FY 1987 Appropriations Act, a direct appropriation was made for the acquisition of land and interest therein in Columbia River Gorge, Oregon, and Washington.

Authorities

P.L. 61-435, Weeks Act, March 1, 1911, as amended by P.L. 94-588 (16 U.S.C. 516, 521b). Sections 1 and 2.

Land acquisition for watershed protection and timber production.
(05-96) 12-1103 302 SAGR HAGR

P.L. 88-577, Wilderness Act, September 3, 1964. Sections 5 and 6.
Land acquisition, exchange, donation.
Such sums as appropriated; no expiration date.

P.L. 90-542, Wild and Scenic Rivers Act, October 2, 1968. Sections 6 and 16.
Land acquisition, exchange, donation.
Such sums as appropriated; no expiration date.

P.L. 90-543, National Trails System Act, October 2, 1968, as amended by P.L. 98-11 (16 U.S.C. 1241-1251). Sections 7 and 10.
Land acquisition, exchange, donation. Management and assistance of the National Trails System.
Such sums as appropriated; no expiration date.

P.L. 93-205, Endangered Species Act, December 28, 1973. Sections 2 and 3.
Protection of threatened and endangered species.

P.L. 93-622, Eastern Wilderness Act, January 3, 1975. Sections 6 and 9.

Land acquisition, exchange, donation.

Such sums as appropriated; no expiration date.

P.L. 95-442, Act of October 10, 1978 (7 U.S.C. 2269).

Donations of land or interests in land.

P.L. 96-586, Lake Tahoe Basin Act, December 23, 1980. Sections 2 and 3.

Land acquisition.

Such sums as appropriated; no expiration date.

(05-96) 12-5004-302 SENR HIIA

P.L. 99-663, Columbia River Gorge National Scenic Area Act, November 17, 1986. Section 16a.

Land acquisition; \$40,000,000; no expiration date.

(05-96) 12-1107-302 SENR HIIA HAGR

Additional authorities are provided in each of the acts establishing National Recreation Areas and Wildernesses and in other specific laws.

Land & Water Conservation Fund

Objective To acquire lands, waters, and related interests within the National Forest System for recreation, wilderness, wildlife habitat management, endangered species protection, and other important public outdoor recreation purposes.

Program description Since the program began in 1965, nearly 1.2 million acres needed for outdoor recreation within the National Forest System have been acquired for approximately \$574 million, or about \$478 per acre.

Over the past 5 years, approximately 150,000 acres have been acquired at a cost of \$168.4 million, for an average of \$1,123 per acre.

Funds may be used to equalize values in land exchanges in which qualifying lands are being acquired.

Increase for 1988		1988	1988	Increase
		Base	Estimate	
		(Dollars in thousands)		
	Land and Water			
	Conservation Fund \$	--	3,907	+3,907
	FTE	--	80	+80

A total of \$3,907,000 is proposed.

This level of funding will provide for the closing of existing land acquisition cases, payment of deficiency awards, and payments of equalized values in land exchanges.

No new acquisitions are planned for FY 1988.

Emphasis will continue to be placed on land exchanges as an alternative to land purchase, by encouraging non-Federal landowners to pursue exchange.

Object class information	Salaries and benefits	+2,759
	Travel	+26
	Rent, communications, and utilities	+33
	Other services	+220
	Supplies, materials, and equipment	+869
	Total	+3,907

LAND ACQUISITION

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5004-0-2-303				
Program by activities:				
Direct program:				
00.01	Land acquisition, L&WCF	40,969	60,000	8,500
00.02	Columbia River Gorge	---	3,000	---
10.00	Total obligations	40,969	63,000	8,500
Financing:				
Offsetting collections from:				
17.00	Recovery of prior year obligations ...	-374	---	---
21.40	Unobligated balance available, start of year	-60,507	-46,832	-8,998
22.40	Unobligated balance, transferred	4,436	27,070	---
24.40	Unobligated balance available, end of year	46,832	8,998	4,405
39.00	Budget authority	31,356	52,236	3,907
Budget authority:				
40.00	Appropriation	31,356	52,236	3,907
Relation of obligations to outlays:				
71.00	Obligations incurred, net	40,969	63,000	8,500
72.40	Obligated balance, start of year ...	6,149	8,810	30,524
74.40	Obligated balance, end of year	-8,810	-30,524	-32,122
78.00	Adjustments in unexpired accounts ..	-374	---	---
90.00	Outlays excluding pay raise supplemental	37,934	41,286	6,902

SUMMARY OF BUDGET AUTHORITY AND OUTLAYS (in thousands of dollars)

Enacted/requested:			
Budget authority.....	31,356	52,236	3,907
Outlays.....	37,934	41,286	32,379
Rescission proposal:			
Budget authority.....	-42,430
Outlays.....	-7,883	-25,477
Total:			
Budget authority.....	31,356	9,806	3,907
Outlays.....	37,934	33,403	6,902

LAND ACQUISITION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5004-0-2-303				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	2,319	2,339	2,273
11.3	Other than full-time permanent	113	116	114
11.5	Other personnel compensation	17	17	17
11.9	Total personnel compensation	2,449	2,472	2,404
Personnel benefits:				
12.1	Civilian	383	387	376
13.0	Benefits for former personnel	6	6	6
21.0	Travel and transportation of persons ...	115	181	129
22.0	Transportation of things	15	24	17
23.1	Standard level user charges	53	48	34
23.2	Rental payments to others	52	82	59
23.3	Communications, utilities, and miscellaneous charges	62	98	70
24.0	Printing and reproduction	2	3	2
25.0	Other services	967	1,526	1,089
26.0	Supplies and materials	3,788	5,977	4,266
31.0	Equipment	29	46	33
32.0	Lands and structures	33,034	52,128	---
42.0	Insurance claims and indemnities	10	16	11
44.0	Refunds.....	4	6	4
99.9	Total obligations	40,969	63,000	8,500

PERSONNEL SUMMARY

Direct:			
Total number of full-time permanent positions.....			
	78	77	76
Total compensable workyears:			
Full-time equivalent employment			
	82	81	80
Full-time equivalent of overtime and holiday hours			
	1	1	1
Average ES salary	\$ 67,823	\$ 69,807	\$ 69,807
Average GS grade	11.66	11.66	11.66
Average GS salary	\$ 31,377	\$ 32,083	\$ 32,318
Average salary of ungraded positions	\$ 27,405	\$ 28,021	\$ 28,227

Acquisition of Lands for National Forests, Special Acts

	1986 <u>Actual</u>	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)					
Acquisition of lands for National Forests, special acts ... \$	744	966	966	966	--	--
Acres acquired	103	595	595	615	+20	+20
FTE	3	3	3	3	--	--

Appropriation Summary Statement

The Congress has enacted several special laws that authorize appropriation from receipts of specified national forests to purchase lands to minimize erosion and flood damage.

These critical watershed lands need soil stabilization and vegetative cover restoration to prevent serious erosion and damaging floods within the national forests. Land treatment measures must be applied and subsequently maintained on all lands in these areas to make corrective action fully effective.

To ensure full program effectiveness, the Federal government acquires the intermingled private lands. Results are reflected in improved watershed conditions.

The governments of the designated counties in Utah, Nevada, and southern California recognize the benefits from these acquisition programs and are interested in having these critical lands protected through public ownership.

Damages to the lands are occurring that can only result in future expenditures of public funds for rehabilitation and public safety that greatly exceed current costs for land acquisition.

Authorities

P.L. 76-589, 76-591, and 78-310 (54 Stat. 299 and 297 and 58 Stat. 227).

Land acquisition for watershed protection and timber production.
(05-96) 12-5208 302 SENP HIIA

Toiyabe-\$10,000 annually.

Other such sums as available from the receipts of each National Forest or as appropriated; no expiration date.

Objective

To acquire lands within critical watersheds needing soil stabilization and restoration of vegetation, to prevent serious erosion and resulting damage by floods. Funds may also be used for cash equalization in land exchanges involving acquisition of these lands.

Program description

Lands are acquired from willing sellers and are managed to stabilize the soils and restore vegetative cover to prevent serious erosion and damaging floods. In the past 3 years, 665 acres have been acquired at a cost of \$1,178,800.

No change
for 1988

Acquisition of Lands to Complete Land Exchanges

	1986 <u>Actual</u>	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)			
Acquisition of lands to complete land exchanges \$	1,086	895	895	990	+95	+95
Acres acquired	38	552	552	786	+234	+234
FTE	1	1	1	1	--	--

Appropriation Summary Statement

The Act of December 4, 1967 (16 U.S.C. 484a), as amended, stipulates that deposits made by public school districts, public school authorities, or State or local governments for cash equalization of certain land exchanges can be appropriated to acquire replacement lands for National Forest System (NFS) purposes in the same State.

Authorities

P.L. 90-171, Act of December 4, 1967, Land Exchanges in the National Forests, as amended (16 U.S.C. 484a).
Acquisition of lands to complete land exchange with public schools and State and local governments.
(06-96) 12-5216 302 SAGR HAGR
Such sums as appropriated; no expiration date.

Objective

To acquire lands suitable for NFS purposes, in order to replace NFS lands acquired by public school districts, public school authorities, or State or local governments.

Program description

When it is in the public interest, public schools and State or local governments can acquire NFS lands by making a cash equalization payment up to 100 percent of the value of the Federal land when the State, local, or school authority has insufficient land to offer in exchange. This cash payment is deposited into a special U.S. Treasury fund specifically for acquiring replacement lands. When appropriated, these funds may be used within the same State to acquire replacement lands suitable for NFS purposes.

This program is cyclical, and the availability of funds depends on deposits into the fund by individual school districts or State or local governments when they acquire a tract of NFS land.

Increase for 1988

	1988 <u>Base</u>	1988 Estimate	<u>Increase</u>
	(Dollars in thousands)		
Acquisition of lands to complete land exchanges \$	895	990	+95
FTE	1	1	--

A total of \$990,000 is proposed.

This funding level will allow acquisition of 786 acres, 234 acres more than the 552 acres in FY 1987.

Object class information

Land and structures	+95
Total	+95

255

Range Betterment Fund

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u> (Dollars	<u>1988 Estimate</u> in thousands)	<u>Inc.(+) or Dec.(-) from 1987</u>	<u>Inc.(+) or Dec.(-) from Base</u>
Range Betterment Fund	\$ 3,635	3,644	3,644	3,750	+106	+106
FTE	74	74	74	74	--	--

Appropriation Summary Statement

A range betterment program on national forest lands within the 16 Western States is financed by appropriations from grazing fee receipts.

Range betterment activities involve installing both structural and nonstructural range improvements. These include seeding, fence construction, weed control, water development, and fish and wildlife habitat enhancement.

Authorities

P.L. 94-579, Federal Land Policy and Management Act of 1976; (43 U.S.C. 1751), as amended by P.L. 95-514, Public Rangelands Improvement Act of 1978 (43 U.S.C. 1751(b)(1)).

Range management use of one-half of grazing receipts from National Forests in 16 Western States.

(05-96) 12-5207 302 SENR HIIA

One-half of grazing receipts per annum; no expiration date.

Objective

To arrest range deterioration and improve range forage conditions with resulting benefits to livestock production, watershed protection, and wildlife. To make cost effective investments in range improvements on areas of highest priority on national forest lands in the 16 Western States. Demonstrate sound improvement practices on associated private and other State and Federal lands by rehabilitating, protecting, and improving soil and vegetation cover on national forest lands.

Program description

These funds, when appropriated, are used for on-the-ground range rehabilitation, protection, and improvements. One-half of the funds are used on the national forest in which the funds originated, and the other half is for range betterment within that region.

Planning and administrative funds necessary to carry out the intent of the legislation are primarily included in the "range management" section under National Forest System or other benefiting appropriations.

Beginning in FY 1988, a small portion of the planning and administrative costs will be paid by the Range Betterment Fund (see "Language Change Proposals" section). Outputs and accomplishments, a combination of both range management and Range Betterment Fund, are shown as a combined total under range management.

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Range Betterment Fund ... \$	3,644	3,750	+106
FTE	74	74	--

An increase of \$106,000 is proposed from the 1988 base.

The proposed funding level is based on 50 percent of the estimated FY 1987 grazing receipts of national forests in the 16 Western States.

**Object class
information**

Other services	+31
Supplies, materials, and equipment	+75
Total	+106

Operation and Maintenance of Recreation Facilities

	1986 <u>Actual</u>	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)			
Operation and maintenance of recreation facilities \$	--	--	--	52,000	+52,000	+52,000
FTE	--	--	--	1,235	+1,235	+1,235

**Appropriation
Summary
Statement**

A program of maintaining recreation areas and facilities on NFS lands is proposed.

Authority

Proposed legislation and amendment to P.L. 88-578, Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460e et. seq.). Section 4b. Such sums as are appropriated from receipts by Congress.

Objective

To manage and protect the natural resources and facilities that will accommodate the public's need for outdoor recreation, emphasizing opportunities to know and experience nature. To maintain facilities necessary to meet the rising demands for natural resource oriented recreation.

**Program
description**

This proposed program will provide for the return of user fee receipts for operation and maintenance of recreation areas and facilities. Recreationists who enjoy National Forest System lands will receive direct benefit from the fees collected. Land and Water Conservation Fund receipts from other sources are necessary in FY 1988 to provide time for proposed legislation to be passed that will allow sufficient funds to accrue.

Receipts will be used with recreation management funds in providing 92.4 million PAOT-days (persons-at-one-time) of managed facility use.

Youth Conservation Corps

	<u>1986 Actual</u>	<u>1987 Approp. Enacted to Date</u>	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Inc.(+) or Dec.(-) from Base</u>
			(Dollars in thousands)		
Youth Conservation Corps .. \$	(3,234)	(1,000)	--	--	--
FTE	--	--	--	--	--

Objective

To do needed conservation work on public lands and waters; to provide gainful employment for 15- to 18-year-old males and females from all social, economic, ethnic, and racial classifications; and to develop an environmental understanding and appreciation during their participation in the program.

Program description

The Act of August 13, 1970 (84 Stat. 794) (16 U.S.C. 1701-06), as amended, authorizes the Youth Conservation Corps (YCC) program on Federal lands.

In FY 1986, the Forest Service was authorized to use not less than \$3.2 million, and operated a \$3.5 million YCC program with Forest Service funds, serving 2,107 young people.

In FY 1987, a YCC program of not less than \$1 million for high priority projects will be carried out with funds from benefiting Forest Service programs.

Additional information on accomplishments for YCC is in the section on human resource programs.

A YCC program is not proposed for FY 1988.

Working Capital Fund

Authorities	Department of Agriculture Organic Act of 1956 (70 Stat.; 16 U.S.C. 579b).
Appropriation Summary Statement	The Working Capital Fund was established by the Department of Agriculture Organic Act of August 3, 1956, as amended by the Act of October 23, 1962 (16 U.S.C. 579b). It is a self-sustaining revolving fund which provides services to the National Forest System, Experiment Stations, and other Federal agencies, and, as provided by law, to State and private agencies and persons who cooperate with the Forest Service in fire control and other authorized programs.
Objective	To provide orderly and efficient financial management for the service and supply operations of the Forest Service.
Program description	<p>The forestry-related supply and support services provided by the Working Capital Fund in FY 1986 included the following:</p> <ol style="list-style-type: none">1. Equipment--a service that owns, operates, maintains, replaces, and repairs common-use motor driven and similar equipment. Administrative units rent this equipment at rates that recover the cost of operation, repair, maintenance, management, and depreciation. The rates also include an increment that provides additional cash which, when added to depreciation earnings and the residual value of equipment, provides sufficient funds to replace the equipment.2. Aircraft--a service that operates, maintains, and repairs Agency-owned aircrafts used in fire surveillance, suppression, and other Forest Service programs. The aircrafts are rented at rates that recover the cost of depreciation, management, operation, maintenance, and repair. Aircraft replacement costs are financed from appropriated funds, the Forest Service Working Capital Fund, or a combination of both.3. Supply--a service that provides the following:<ul style="list-style-type: none">- Photo reproduction laboratories which store, reproduce, and supply photographs of National Forest System lands and activities at cost.- Sign shops which manufacture and supply special signs for use in regulating traffic and as information to the public and other users of the National Forest System.- Subsistence facilities which prepare and serve meals for Forest Service crews working in areas where adequate public restaurant facilities are not available.- Seed supply service which provides tree seeds for direct seeding or sowing in nurseries for the production of trees. The work under this activity includes the purchase or collection of cones, extraction of the seeds, cleaning and testing of the seeds, storage, and later delivery of the seeds. This activity usually operates in conjunction with a tree nursery.4. Tree Nurseries--a service that operates forest tree nurseries and cold storage facilities for storage of tree seedlings for sale to Forest Service programs, State foresters, and other cooperators, at cost.

Volume of business for the various major activities of the Working Capital Fund:

	<u>1986 Actual</u>	<u>1987 Estimate</u> (Dollars in thousands)	<u>1988 Estimate</u>
Equipment	\$63,638	\$62,534	\$64,337
Aircraft	3,659	3,654	3,820
Supply	2,190	3,359	3,401
Nursery	<u>13,800</u>	<u>13,480</u>	<u>13,217</u>
Total	\$87,060	\$83,027	\$84,775

The Working Capital Fund requires no cash appropriation. Initially, its assets were purchased by regular Forest Service appropriations and were donated to the fund.

Estimated expenditures by the Working Capital Fund are based on plans submitted by Forest Service field offices.

OTHER APPROPRIATIONS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-9911-0-1-302				
Program by activities:				
	1. Acquisition of lands for Winema National Forest, Oregon	219	---	---
	2. Youth Conservation Corps.....	660	64	---
10.00	Total obligations (object class 32.0)	879	64	---
Financing:				
21.40	Unobligated balance available, start of year	-469	-64	---
24.40	Unobligated balance available, end of year	64	---	---
25.00	Unobligated balance lapsing.....	-474	---	---
39.00	Budget authority	---	---	---
Relation of obligations to outlays:				
71.00	Obligations incurred, net	879	64	---
72.40	Obligated balance, start of year....	479	433	---
74.40	Obligated balance, end of year.....	-433	---	---
90.00	Outlays	925	497	---
Distribution of outlays by account:				
	Winema National Forest	219	---	---
	Forest management, protection, and utilization	706	497	---

ACQUISITION OF LANDS FOR NATIONAL FORESTS

SPECIAL ACTS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5208-0-2-302				
Program by activities:				
	1. Cache National Forest, Utah	47	20	20
	2. Wasatch National Forest, Utah.....	---	30	30
	3. Toiyabe National Forest, Nev	10	10	10
	4. San Bernardino and Cleveland National Forests, Calif	---	446	446
	5. Angeles National Forest, Calif ...	39	260	260
	6. Cleveland National Forest, Calif .	210	200	200
10.00	Total obligations	306	966	966
25.00	Unobligated balance lapsing	438	---	---
40.00	Budget authority (appropriation) (special fund)	744	966	966
Relation of obligations to outlays:				
71.00	Obligations incurred, net	306	966	966
72.40	Obligated balance, start of year	379	7	29
74.40	Obligated balance, end of year	-7	-29	-29
90.00	Outlays	678	944	966

OBJECT CLASSIFICATION (in thousands of dollars)

Personnel compensation:				
11.1	Full-time permanent	82	87	91
Personnel benefits:				
12.1	Civilian	10	11	12
21.0	Travel and transportation of persons ...	1	4	4
25.0	Other contractual services	4	16	16
26.0	Supplies and materials	1	4	4
32.0	Lands and structures	208	844	839
99.9	Total obligations	306	966	966

PERSONNEL SUMMARY

Direct:

Total number of full-time permanent positions.....	3	3	3
Total compensable workyears:			
Full-time equivalent employment	3	3	3
Average GS grade	9.86	9.86	9.86
Average GS salary	\$ 27,334	\$ 27,949	\$ 28,154

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5216-0-2-302				
Program by activities:				
Acquisition of land:				
	Arizona	346	566	238
	California	---	835	250
	Colorado	---	279	480
	Georgia	37	30	---
	Michigan	32	---	---
	Montana	48	---	---
	New Mexico	5	---	---
	Texas	---	420	230
10.00	Total obligations	468	2,130	1,198
Financing:				
21.40	Unobligated balance available, start of year	-932	-1,550	-314
24.40	Unobligated balance available, end of year	1,550	314	106
40.00	Appropriation	1,086	895	990
Relation of obligations to outlays:				
71.00	Obligations incurred, net	468	2,130	1,198
72.40	Obligated balance, start of year ...	23	369	1,604
74.40	Obligated balance, end of year	-369	-1,604	-1,812
90.00	Outlays	122	895	990

OBJECT CLASSIFICATION (in thousands of dollars)

Personnel compensation:				
11.1	Full-time permanent	26	30	33
11.3	Other than full-time permanent	1	1	1
11.9	Total personnel compensation	27	31	34
Personnel benefits:				
12.1	Civilian	3	3	3
25.0	Other services	54	259	143
26.0	Supplies and materials	5	24	13
31.0	Equipment	1	5	3
32.0	Lands and structures	378	1,808	1,002
99.9	Total obligations	468	2,130	1,198

PERSONNEL SUMMARY

Direct:

Total number of full-time permanent positions	1	1	1
Total compensable workyears:			
Full-time equivalent employment	1	1	1
Average GS grade	12.57	12.57	12.57
Average GS salary	\$ 36,664	\$ 37,488	\$ 37,764

GIFTS, DONATIONS, AND REQUESTS FOR FOREST AND RANGELAND RESEARCH

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-8034-0-7-302				
10.00	Total obligations (object class 25.0)	8	347	90
	Financing:			
	Unobligated balance available, start of year:			
21.4001	Treasury balance	-53	-57	---
21.4002	U.S. securities (par)	-200	-200	---
	Unobligated balance available, end of year:			
24.4001	Treasury balance.....	57	---	---
24.4002	U.S. securities (par)	200	---	---
	Budget authority:			
40.0001	Appropriation	12	90	90
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	8	347	90
72.40	Obligated balance, start of year....	28	-1	256
74.40	Obligated balance, end of year.....	1	-256	-256
90.00	Outlays	37	90	90

RANGE BETTERMENT FUND

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5207-0-2-302				
10.00	Total obligations	3,670	4,140	3,750
	Financing:			
17.00	Recovery of prior year obligations	-8	---	---
21.40	Unobligated balance available, start of year	-523	-496	---
24.40	Unobligated balance available, end of year	496	---	---
40.00	Appropriation	3,635	3,644	3,750
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	3,670	4,140	3,750
72.40	Obligated balance, start of year ...	1,018	993	1,491
74.40	Obligated balance, end of year	-993	-1,491	-1,512
78.00	Adjustment in expired accounts	-8	---	---
90.00	Outlays	3,686	3,642	3,729

OBJECT CLASSIFICATION (in thousands of dollars)

	Personnel compensation:			
11.1	Full-time permanent	675	693	680
11.3	Other than full-time permanent	630	645	634
11.5	Other personnel compensation	67	71	67
11.8	Special personnel service payments.....	28	35	42
11.9	Total personnel compensation	1,400	1,444	1,423
	Personnel benefits:			
12.1	Civilian	151	156	154
13.0	Benefits for former personnel	19	20	20
21.0	Travel and transportation of persons ...	21	27	22
22.0	Transportation of things	36	46	38
23.1	Standard level user charges	1	1	1
23.2	Rental payments to others	1	1	1
23.3	Communications, utilities, and miscella- neous charges	16	20	16
24.0	Printing and reproduction.....	7	9	7
25.0	Other services	603	768	632
26.0	Supplies and materials	1,248	1,436	1,261
31.0	Equipment.....	45	57	47
32.0	Lands and structures	121	154	127
42.0	Insurance claims and indemnities.....	1	1	1
99.9	Total obligations	3,670	4,140	3,750

RANGE BETTERMENT FUND

PERSONNEL SUMMARY

Identification code:	1986 actual	1987 est.	1988 est.
12-5207-0-2-302			
Direct:			
Total number of full-time permanent positions.....	29	29	29
Total compensable workyears:			
Full-time equivalent employment	74	74	74
Full-time equivalent of overtime and holiday hours.....	3	3	3
Average GS grade	8.75	8.75	8.75
Average GS salary	\$ 24,043	\$ 24,584	\$ 24,764
Average salary of ungraded positions	\$ 21,172	\$ 21,648	\$ 21,807

OPERATION AND MAINTENANCE OF RECREATION FACILITIES
(Proposed for later transmittal, proposed legislation)

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5072-2-2-303				
10.00	Total obligations	---	---	50,000
Financing:				
24.40	Unobligated balance available, end of year	---	---	2,000
40.00	Appropriation	---	---	52,000
Relation of obligations to outlays:				
71.00	Obligations incurred, net	---	---	50,000
74.40	Obligated balance, end of year	---	---	-5,280
90.00	Outlays	---	---	44,720

OBJECT CLASSIFICATION (in thousands of dollars)

Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	---	---	29,772
11.3	Other than full-time permanent	---	---	3,219
11.5	Other personnel compensation	---	---	504
11.9	Total personnel compensation	---	---	33,495
Personnel benefits:				
12.1	Civilian	---	---	4,671
13.0	Benefits for former personnel	---	---	693
21.0	Travel and transportation of persons ...	---	---	216
22.0	Transportation of things	---	---	85
23.2	Rental payments to others	---	---	128
23.3	Communications, utilities, and miscellaneous charges	---	---	206
24.0	Printing and reproduction	---	---	41
25.0	Other services	---	---	6,101
26.0	Supplies and materials	---	---	390
31.0	Equipment	---	---	246
32.0	Lands and structures	---	---	3,687
42.0	Insurance claims and indemnities	---	---	32
44.0	Refunds	---	---	9
99.9	Total obligations	---	---	50,000

PERSONNEL SUMMARY

Direct:				
Total number of full-time permanent positions				
		---	---	1,099
Total compensable workyears:				
Full-time equivalent employment				
		---	---	1,235
Full-time equivalent of overtime and holiday hours				
		---	---	14
Average GS grade				
		---	---	9.96
Average GS salary				
		---	---	\$ 28,100
Average salary of ungraded positions				
		---	---	\$ 23,680

WORKING CAPITAL FUND

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-4605-0-4-302				
Program by activities:				
	1. Operating expenses	65,263	64,580	65,644
	2. Capital investments	21,635	29,150	26,891
10.00	Total obligations	86,898	93,730	92,535
Financing:				
Offsetting collections from:				
11.00	Federal funds	-83,837	-82,182	-84,800
14.00	Non-federal sources	-3,223	-3,653	-4,073
21.98	Unobligated balance available, start of year	-71,371	-71,533	-63,638
24.98	Unobligated balance available, end of year	71,533	63,638	59,976
39.00	Budget authority	---	---	---
Relation of obligations to outlays:				
71.00	Obligations incurred, net	-163	7,895	3,662
72.98	Obligated balance, start of year ...	35,905	35,593	43,488
74.98	Obligated balance, end of year	-35,593	-43,488	-47,150
90.00	Outlays	149	---	---

OBJECT CLASSIFICATION (in thousands of dollars)

Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	17,098	17,637	17,137
11.3	Other than full-time permanent	5,134	5,286	5,154
11.5	Other personnel compensation	559	575	560
11.8	Special personal service payments	4	4	4
11.9	Total personnel compensation	22,795	23,502	22,855
Personnel benefits:				
12.1	Civilian	2,889	2,979	2,897
13.0	Benefits for former personnel	561	579	563
21.0	Travel and transportation of persons ...	507	558	554
22.0	Transportation of things	366	403	400
23.1	Standard level user charges	505	468	545
23.2	Rental payments to others	627	690	685
23.3	Communications, utilities, and miscella- neous charges	1,370	1,508	1,496
24.0	Printing and reproduction	19	21	21
25.0	Other services	14,371	15,817	15,691
26.0	Supplies and materials	20,857	22,956	22,772
31.0	Equipment	21,684	23,867	23,677
32.0	Lands and structures	103	113	112
41.0	Grants, subsidies, and contributions ...	2	2	2
42.0	Insurance claims and indemnities	242	267	265
99.9	Total obligations	86,898	93,730	92,535

Personnel totals are included with personnel totals of all other Forest Service programs.

Permanent Appropriations— Working Funds

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
	(Dollars in thousands)					
Brush disposal						
Receipts	\$ 52,936	64,000	--	64,000	--	--
Program level .	\$ 45,960	47,835	50,766	54,438	+6,603	+3,672
Thousand acres	320.6	319.0	319.0	322.0	+3.0	+3.0
FTE	1,079	1,052	1,052	1,091	+39	+39
Licensee programs:						
Smokey Bear and Woodsy Owl						
Receipts	\$ 95	100	--	100	--	--
Program level .	\$ 96	100	100	100	--	--
FTE	1	1	1	1	--	--
Restoration of forest lands & improvements						
Receipts	\$ 176	100	--	100	--	--
Program level .	\$ 96	100	100	100	--	--
FTE	3	3	3	3	--	--
Roads & trails for States, National Forest Fund						
Receipts	\$ (55,491)	(77,979)	--	(75,023)	--	--
Timber purchaser roads constructed by the Forest Service						
Receipts	\$ 22,911	15,434	--	21,037	+5,603	--
Program level .	\$ 3/ 6,218	8,225 1/	--	11,430	+3,205	+11,430
FTE	7	7	--	7	--	+7
Timber salvage sales						
Receipts	\$ 20,677	27,000	--	27,000	--	--
Program level .	\$ 22,968	26,000	27,565	18,635	-7,365	-8,930
FTE	627	564	564	432	-132	-132
Tongass timber supply fund						
Receipts	\$ 51,802	45,815	--	45,379	-436	--
Program level .	\$ 49,573	45,815	47,236	45,379	-436	-1,857
FTE	494	435	435	427	-8	-8
Operation and maintenance of Forest Service quarters						
Receipts	\$ 5,352	5,400	--	5,500	+100	--
Program level .	\$ 4,881	5,400	5,400	5,500	+100	+100
FTE	81	81	81	81	--	--
TOTAL						
Receipts	\$ 153,949	157,849	--	163,116	+5,267	--
Program level .	\$ 129,792 2/	133,475	131,167	135,582	+2,107	+4,415
FTE	2,292	2,143	2,136	2,042	-101	-94

- 1/ This amount does not reflect the proposed transfer of \$11,900,000 to the National Forest System appropriation to cover pay and FERS costs in FY 1987.
- 2/ The amounts shown reflect a 4.3 percent reduction in program level in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.
- 3/ Reflects actual use in FY 1986. FY 1987 and FY 1988 amounts reflect field estimates based on recent experience with this fund.

Authorities

- P.L. 62-430, Act of March 4, 1913 (16 U.S.C. 501) (Department of Agriculture Appropriations Act).
Forest road and trail improvements--10 percent financed from National Forest receipts.
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.
- P.L. 64-190, Act of August 11, 1916 (Department of Agriculture Appropriations Act), as amended (16 U.S.C. 490). Section 6.
Disposal of brush and other debris due to timber sales in National Forests.
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.
- P.L. 82-327, Act of May 23, 1952, as amended (16 U.S.C. 580p-2). Section 3.
Forest fire prevention campaign (Smokey Bear).
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.
- P.L. 85-464, Act of June 20, 1958 (16 U.S.C. 579c). Section 7.
Restoration, improvements, and protection of Forest Service lands.
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.
- P.L. 93-318, Act of June 22, 1974, as amended (16 U.S.C. 580p-3). Sections 1-6.
Woodsy owl antipollution campaign.
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation, no expiration date.
- P.L. 94-588, National Forest Management Act of 1976, October 22, 1976 (16 U.S.C. 472a(h) and (i)). Section 14(h) and (i).
Timber salvage fund for harvesting insect infested, dead, and damaged trees. Section 472a(h).
Timber purchaser roads constructed by the Forest Service. Section 472a(i).
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.
- P.L. 96-487, Alaska National Interest Lands Conservation Act, December 2, 1980 (16 U.S.C. 539d). Section 705a.
Tongass timber supply fund to maintain timber at specified level on Tongass National Forest.
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.
- P.L. 98-473, Title I, Continuing Appropriations Act of 1985, Interior and Related Agency Appropriations, Title III (98 Stat. 1874; 5 U.S.C. 5911 note). Section 320.
Fund for the operation and maintenance of Forest Service Quarters.
(05-96) 12-9922 - 302 SENR HIIA
Permanent appropriation; no expiration date.

Appropriation Summary Statement

This section includes the permanent appropriations that are separate Forest Service activities or which are combined with other Forest Service activities to accomplish common tasks.

Brush Disposal

Objective To dispose of brush and other debris resulting from cutting operations on timber sale areas in order to protect and maintain National Forest System resources.

Program description Timber cutting usually increases the fire hazard because of the dry fuel that accumulates as logging slash. Slash may also impair reforestation, contribute to the buildup of insect populations, damage stream channels, look unsightly, and limit recreational access.

Brush may be disposed of by crushing, chipping, burning, or a combination of these methods.

When disposal of brush and other debris from timber sale operations is necessary, National Forest timber sale contracts require treatment or deposit of funds for treatment of debris. When economical and expedient, the work is performed by the timber purchaser. The work can also be carried out by the Federal Government using deposits collected from the purchaser to cover costs of the work. This activity is authorized under Section 6 of the Act of April 24, 1950 (16 U.S.C. 490).

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Brush disposal	\$ 50,766	54,438	+3,672
FTE	1,052	1,091	+39

An increase of \$3,672,000 is proposed from the 1988 base.

This program level provides for the treatment of 322,000 acres of National Forest lands where timber harvest has been completed and where the resulting fuels are ready for treatment. This is an increase of 3,000 acres from 319,000 acres in FY 1987.

Object class information

Salaries and benefits	+913
Travel	+95
Transportation of things	+79
Rent, communications, and utilities	+310
Other services	+1,643
Supplies, materials, and equipment	+632
Total	+3,672

Licensee Programs—Smokey Bear and Woodsy Owl

Objective	To prevent forest fires and promote environmental quality.
Program description	<p>Fees for the use of the Smokey Bear and Woodsy Owl characters by private enterprises are collected under regulations formulated by the Secretary of Agriculture. They are available to fund the following:</p> <ul style="list-style-type: none">- Smokey Bear--to further the nationwide forest fire prevention campaign (16 U.S.C. 580p).- Woodsy Owl--to promote wise use of the environment, and programs that foster maintenance and improvement of environmental quality (16 U.S.C. 580p).

No change
for 1988

Restoration of Forest Lands and Improvements

Objective	To complete all necessary work to return National Forest System lands to optimum production in a timely manner.
Program description	<p>This program includes recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers who fail to complete performance or improvement, protection, or rehabilitation work required under the permit or timber sale contract.</p> <p>The recovered funds are used to cover the cost to the Government of completing the work on National Forest System lands. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement (Act of June 20, 1958, 16 U.S.C. 579c).</p>

No change
for 1988

Roads and Trails for States—National Forest Fund

Objective	To offset appropriations for road and trail improvements.
Program description	<p>Under the Act of March 4, 1913 (16 U.S.C. 501), 10 percent of National Forest receipts are made available to build and maintain roads and trails within the national forests in the States where the receipts were collected. This permanent appropriation has been transferred to the General Fund since 1982 to offset appropriations. The amounts shown in the table at the beginning of this section are actual for 1986 and 1987, and estimated (based on 1987 receipts) for 1988.</p>

Timber Purchaser Roads Construction by the Forest Service (PEP)

Objective To build timber sale roads on the National Forests for small business purchasers who elect to have the roads built by the Forest Service.

Program description This program, referred to as the Purchaser Election Program (PEP), is part of the financing of the annual total Forest Service road program.

For a road to qualify, construction costs exceeding \$20,000 must be included in the timber sale contract, and the purchaser must be classified as a small business operator. The PEP program is available to all locations in the National Forest System except the State of Alaska. Authority cited at 16 U.S.C. 472a(i) makes funds available from timber receipts.

Increases or decreases in mileage constructed through the PEP are offset by decreases or increases in the purchaser credit program (PCP). Costs differ between purchaser credit and purchaser election funds only by the increase from including Davis-Bacon minimum wage rate requirements in competitively bid construction contracts funded by PEP.

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Timber purchaser roads constructed by the Forest Service	\$ --	21,037	+21,037
FTE	--	7	+7

A total authorization of \$21,037,000 is proposed.

Estimated expenditure of \$11,430,000 within this authorization is based on field estimates from most recent experience with this fund. The mileage associated with this spending level is estimated at 549 miles.

Objective class information

Salaries and benefits	+146
Travel	+129
Transportation of things	+439
Other services	+13,137
Supplies, materials, and equipment	+4,784
Land and structures	+2,402
Total	+21,037

Timber Salvage Sales

Objective To salvage insect-infested, dead, damaged, or down timber, and to remove associated trees for stand improvement.

Program description This program is part of the timber sales program.

A separate permanent appropriation for timber salvage was established for this program as a result of the National Forest Management Act of 1976, 16 U.S.C. 472a(h). Part of the receipts from timber salvage sales are deposited in this account and used to prepare and administer future salvage sales.

Separate appropriations of \$3 million each in FY 1977 and FY 1979 were used as "seed money" to accelerate the establishment of timber salvage sales as a self-sustaining permanent appropriation.

Some of the sales prepared with these funds are set aside for preferential award to small business firms with 25 or fewer employees.

Total timber salvage in NFS appropriation and timber salvage sales is:

	FY 1986 Actual	FY 1987 Estimate	FY 1988 Estimate
	(Billion board feet)		
NFS salvage volume from sale			
administration and management	1.144	1.000	1.100
Timber salvage sale volume	<u>1.179</u>	<u>1.039</u>	<u>.781</u>
Total salvage volume	2.323	2.039	1.881

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Timber salvage sale \$	27,565	18,635	-8,930
FTE	564	432	-132

A decrease of \$8,930,000 is proposed from the 1988 base.

This provides for advance sale preparation, necessary timber support, and transportation system design work necessary to prepare and offer 781 MMBF of salvage volume. This is about 258 MMBF less than the FY 1987 program of 1,039 MMBF.

These funds also provide for the full administration of salvage sales made in previous years.

Object class information	Salaries and benefits	-3,309
	Travel	-353
	Transportation of things	-292
	Rent, communications, and utilities	-1,011
	Other services	-2,793
	Supplies, materials, and equipment	-1,172
	Total	-8,930

Tongass Timber Supply Fund

Objective To maintain the timber supply from the Tongass National Forest at a rate of 4.5 billion board feet per decade as provided by 16 U.S.C. 539d.

Program description The Tongass Timber Supply Fund was created as a result of Congressional wishes to designate wilderness on the Tongass National Forest while maintaining an existing, viable timber industry. Funding was to be derived from receipts collected by the Secretaries of the Interior and Agriculture. These funds were to be used to produce timber from the Tongass in an environmentally sound and economically viable manner.

The Tongass National Forest contains 16.9 million acres, of which 9.4 million acres are forested. Within this forested area, only 5.7 million acres are classified as capable for timber production. About 3.7 million acres of these capable forest lands are not available for timber management because they are classified as wilderness, within areas to be retained for visual management or other resource priorities, or not suitable for commercial timber production. The remaining 2 million acres, about 12 percent of the Tongass National Forest, are available for timber management activities.

Added investments of Tongass Timber Supply Funds were authorized to offset the loss of economically viable timber included in designated wilderness, administratively maintained unroaded areas, and management prescriptions that emphasized resources other than timber. These added investments were displayed in the Tongass Land Management Plan which was closely reviewed by Congress prior to the passage of the Alaska National Interest Lands Conservation Act. The Plan clearly documents that these added investments were increased costs that would not be offset by increased receipts to the Treasury.

Decrease for 1988

	1988 Base	1988 Estimate	Decrease
	(Dollars in thousands)		
Tongass Timber Supply			
Fund	\$ 47,236	45,379	-1,857
FTE	435	427	-8

A decrease of \$1,857,000 is proposed from the FY 1988 base.

Funding levels for the Tongass Timber Supply Fund displayed in this section are those necessary to maintain the supply of timber to the dependent industry at a rate of 4.5 BBF per decade.

Funding at this level will provide for the preparation and offer of 374 MMBF of timber sales. This level is the volume necessary to meet contract commitments on two long-term timber sales and to maintain the agreement with the Small Business Administration on short-term sales for eligible small business operators in southeast Alaska. This funding level fully implements the internal cost reductions in timber sales preparation, timber sales administration, and engineering support discussed in the 1985 Status of the Tongass National Forest report.

Road construction and reconstruction will total \$10.7 million and include 35 miles of road to access future timber sale areas. This level includes \$3 million for augmenting purchaser construction for short-term sales to be offered.

The continuing poor market for Alaska's manufactured timber products resulting from depressed demand and increasing competition in the Pacific rim markets by Canada, Chile, New Zealand, Australia, and the Soviet Union have led to reduced appraisals and bids for Tongass National Forest timber sales. These reduced appraisals and bids have significantly reduced the use of purchaser credits and continued the need for public works construction and augmentation.

Forestry research will emphasize the essential information needs on attainable growth rates, yields, impacts of individual tree selection, effects of soil variability, potential for various logging systems, and markets for Alaska's forest products. The transfer of information from research to practitioners on the Tongass National Forest will continue as validated information becomes available.

The proposed reforestation program of 80 acres will continue to be limited to only the most difficult plantings and to continuation of the tree improvement program, since successful natural regeneration is obtained on most sites in southeast Alaska.

Timber stand improvement will be accomplished on 6,300 acres in FY 1988. This is the same number of acres as in FY 1987, and is based on the annual average needs projected in the Tongass Land Management Plan to maintain the timber supply at 4.5 billion board feet per decade.

Receipts from the sale of timber from the Tongass National Forest will remain below the levels experienced since the early 1960s, due to (1) poor markets for Alaska's timber products, which has led to reduced appraisals and bids for new short term sales and reappraisals for the new operating periods on the long-term sales, and (2) continuing effects of the one-time emergency rate redetermination for short term timber sale holders authorized by Title 4 of the Federal Timber Contract Payment Modification Act of 1984. Sales eligible for this rate redetermination will continue to be harvested in FY 1988.

Facilities construction in FY 1988 will be carried out as follows:

		<u>Project</u>	<u>Amount</u> (Dollars in thousands)
Object class information	Forestwide	Planning and design of out-year projects.	\$ 280
	Chatham	Hoonah Warehouse	745
	Ketchikan	Craig Barracks	<u>644</u>
		Total	\$1,669
	Salaries and benefits		-303
	Travel		-137
	Transportation of things		-19
	Rent, communications, and utilities		-134
	Other services		-523
	Supplies, materials, and equipment		-96
	Lands and structures		-645
		Total	-1,857

Exhibit 1

Tongass Timber Supply Fund

	1986 Actual	1987 Approp. to date (Dollars in thousands)	1988 Estimate	Inc.(+) or Dec.(-) from 1987
Timber sales preparation \$ <u>1/</u> MMBF	8,536 (379)	9,885 (374)	9,191 (374)	-694 --
Timber sales administration \$	3,079	3,530	4,176	+646
Timber support \$	2,754	3,376	2,091	-1,285
Reforestation \$ Acres	191 (194)	138 (0)	136 (80)	-2 (+80)
Timber stand improvement \$ Acres	3,591 (7,465)	3,423 (6,300)	3,488 (6,300)	+65 --
Facilities construction. \$	1,788	1,223	1,669	+446
Road construction \$ Miles	15,616 (80)	11,436 (33)	10,700 <u>2/</u> (35)	-736 (+2)
Engineering support \$	11,976	10,729	10,591	-138
Log transfer site \$	-0-	-0-	1,500	+1,500
Research \$	2,044	2,075	1,837	-238
TOTAL, Tongass timber supply fund \$	49,575	45,815	45,379	-436
Purchaser road construction \$ <u>3/</u> Miles	(6,055) (90)	(6,205) (43)	(6,845) (68)	(+640) (+20)
Ref/TSI (K-V) \$ <u>4/</u> Acres	396 (851)	569 (1,003)	508 (1,000)	-61 (-3)
TOTAL \$	49,971	46,384	45,887	-497

1/ Includes timber management planning and silvicultural examinations.

2/ Includes \$3.0 million for augmenting timber purchaser road construction to timber stands of a quality not anticipated in the forest plan. Mileage is included under purchaser road construction.

3/ Timber purchaser road construction is an off-budget line item that is not reflected in totals. Figures in parentheses indicate dollar limitations set for purchaser construction, which are reflected in the Construction appropriation limitation.

4/ Not included in the Tongass Timber Supply Fund appropriation, but under K-V Trust Funds.

Operation and Maintenance of Quarters

Objective To operate and maintain employee quarters.

Program description Under authority of P.L. 98-473 (5 U.S.C. 5911 note), a permanent fund was established for deposit of Forest Service employee payroll deductions for quarters rental. Funds are used to operate and maintain employee quarters on the unit from which collected. These funds are in addition to the maintenance of facilities funds in the NFS appropriation.

The cost of maintenance and management of water, wastewater disposal systems, and similar facilities in common with administrative use is prorated among contributing activities.

Increase for 1988			
	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Operation and maintenance of Forest Service quarters	\$ 5,400	5,500	+100
FTE	81	81	--

An increase of \$100,000 is proposed from the 1988 base.

This level is based on the estimated receipts from employee quarters rental deductions in FY 1988.

Object class information	Rent, communications, and utilities	+10
	Other services	+37
	Supplies, materials, and equipment	+45
	Lands and structures	+8
	Total	+100

Permanent Appropriations— Payment Funds

	1986 Actual	1/ 1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
			(Dollars in thousands)			
Payment to Minnesota	\$ 1,432	716	716	716	--	--
Payments to counties, National Grasslands	\$ 21,842	9,356	9,356	3,765 2/	-5,591	-5,591
Payments to States, National Forest Fund	\$ 474,310	263,807	263,807	21,575 2/	-242,232	-242,232
Total payments	\$ 497,584	273,879	273,879	26,056 2/	-247,823	-247,823

1/ Prior to 1986, budget authority was based on prior fiscal year receipts. Beginning in 1986, budget authority is based on actual current year receipts. This amount is not known until December, therefore, the budget authority recorded by Treasury at the end of the fiscal year is an estimate.

With this change in procedure, the FY 1986 budget authority is artificially high because it reflects receipts collected from 2 fiscal years, 1985 and 1986.

2/ Payments to counties and payments to States funding is estimated based on proposed new legislation changing the basis from gross-receipts to net receipts.

Authorities

P.L. 60-136, Act of May 23, 1908, Department of Agriculture Appropriations Act, as amended (16 U.S.C. 500).

Payments to States, National Forest Fund.

(05-96) 12-9921 852 SENR HAGR SAGR HIIA

Twenty-five percent of monies received; no expiration date.

P.L. 71-539, Shipstead-Nolan Act of July 10, 1930, as amended by P.L. 95-495 (16 U.S.C. 577g). Section 5.

Payment to Minnesota for land purchase in Superior National Forest.

(05-96) 12-9921 852 SAGR HAGR

Such sums from National Forest Fund equal to three-fourths of 1 percent of the fair appraised value of the lands; no expiration date.

P.L. 75-210, Bankhead-Jones Farm Tenant Act, July 22, 1937, as amended, (7 U.S.C. 1012). Section 33.

Payments to counties where National Grasslands are located.

(05-96) 12-9921 852 SAGR HAGR

Such sums from receipts equal to 25 percent of net revenues; no expiration date.

Payments to Minnesota

Objective	To provide a special annual payment to the State of Minnesota for lands in the Boundary Waters Canoe Area in St. Louis, Cook, and Lake counties as specified by law.
Program description	At the close of each fiscal year, the State of Minnesota is paid 0.75 percent of the appraised value of certain Superior National Forest lands in the counties of Cook, Lake, and St. Louis, for distribution to these counties (16 U.S.C. 577g).

Payments to Counties, National Grasslands

Objective	To provide an annual payment to the counties in which Title III, Bankhead-Jones Acquired Lands are located, for funding schools and roads.
Program description	<p>Of the net revenues received for the use of Title III, Bankhead-Jones Farm Tenant Act lands, 25 percent is paid to the counties in which such lands are located, for school and road purposes (7 U.S.C. 1012).</p> <p>Under current legislation, an estimated \$9,356,000 would be paid to the counties in FY 1988. We are proposing legislation that will decrease this payment to \$3,765,000, a savings of \$5,591,000. Receipts from recreation will continue to be shared as they are under current legislation. Receipts from minerals, timber, grazing, land uses, and power will be shared on a net receipts basis.</p>

Payments to States, National Forest Fund

Objective	To provide an annual payment to the States from National Forest receipts to be used for schools and roads.
Program description	<p>With few exceptions, 25 percent of all monies received from the National Forests during the fiscal year is paid to the States in which the forests are located, to benefit public schools and public roads in the county or counties with the National Forests (16 U.S.C. 500).</p> <p>The National Forest Management Act of 1976 (P.L. 94-588, October 22, 1976) expanded the term "monies received" to include all collections from sale area improvement activities plus "all amounts earned or allowed any purchaser of National Forest timber and other forest products within such State . . . for construction of roads." The amount of this appropriation varies in direct proportion to National Forest receipts, sale area improvement collections, and timber purchaser construction during the previous fiscal year.</p> <p>Under current legislation, an estimated \$263,807,000 would be paid to the States in FY 1988. We are proposing legislation that will decrease this payment to \$21,575,000, a savings of \$242,232,000. Receipts from recreation will continue to be shared as they are under current legislation. Receipts from timber, grazing, land uses, power, and minerals will be shared on a net receipts basis. Purchaser credit earned and allowed and Knutson-Vandenberg deposits will not be shared with the States.</p>

FOREST SERVICE PERMANENT APPROPRIATIONS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-9922-0-2-302				
Program by activities:				
Direct program:				
	1. Expenses, brush disposal	40,942	47,835	48,363
	2. Licensee programs, Forest Service.	34	537	542
	3. Restoration of forest lands and improvements	161	250	253
	4. Timber purchaser roads constructed by Forest Service	5,957	18,100	30,330
	5. Timber salvage sales	19,508	26,000	26,286
	6. Tongass timber supply fund	48,627	54,626	55,226
10.00	Total obligations	115,229	147,348	161,000
Financing:				
17.00	Recovery of prior year obligations....	-1,481	---	---
21.40	Unobligated balance available, start of year	-225,391	-260,240	-236,276
24.40	Unobligated balance available, end of year	260,240	236,276	214,965
39.00	Budget authority	148,597	123,384	139,689
Budget authority:				
Current:				
45.00	Transfer out for pay raises	---	-11,900	---
60.00	Budget authority (appropriation) (permanent, indefinite, special funds)	148,597	135,284	139,689
Relation of obligations to outlays:				
71.00	Obligations incurred, net	115,229	147,348	161,000
72.40	Obligated balance, start of year ...	36,196	37,171	45,705
74.40	Obligated balance, end of year	-37,171	-45,705	-68,323
78.00	Adjustment in unexpired accounts ...	-1,481	---	---
90.00	Outlays	112,773	138,814	138,382
Distribution of budget authority by account:				
	Expenses, brush disposal	52,936	47,835	54,438
	Licensee programs, Forest Service	95	100	100
	Restoration of forest lands and improvements.....	176	100	100
	Timber purchaser roads constructed by Forest Service	22,911	15,434	21,037
	Timber salvage sales	20,677	26,000	18,635
	Tongass timber supply fund	51,802	45,815	45,379
Distribution of outlays by account:				
	Expenses, brush disposal	39,889	47,606	54,471
	Licensee programs, Forest Service	57	100	100
	Restoration of forest lands and improvements	126	100	100
	Timber purchaser roads constructed by Forest Service	9,239	17,849	18,953
	Timber salvage sales	19,040	26,010	19,224
	Tongass timber supply fund	44,422	47,149	45,534

FOREST SERVICE PERMANENT APPROPRIATIONS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-9922-0-2-302				
Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	36,875	35,155	35,413
11.3	Other than full-time permanent	10,945	10,442	10,519
11.5	Other personnel compensation	3,247	3,016	3,038
11.8	Special personnel service payments	62	69	70
11.9	Total personnel compensation	51,129	48,682	49,040
Personnel benefits:				
12.1	Civilian	9,745	9,279	10,139
13.0	Benefits for former personnel	1,727	1,646	1,799
21.0	Travel and transportation of persons ...	3,161	5,351	5,846
22.0	Transportation of things	907	1,535	1,677
23.1	Standard level user charges	1,749	1,618	1,768
23.2	Rental payments to others	863	1,461	1,596
23.3	Communications, utilities, and miscella- neous charges	2,298	3,890	4,250
24.0	Printing and reproduction	270	457	499
25.0	Other services	22,343	37,820	41,324
26.0	Supplies and materials	4,217	7,138	7,799
31.0	Equipment	2,165	3,665	4,004
32.0	Lands and structures	14,601	24,715	31,160
41.0	Grants, subsidies, and contributions ...	2	3	3
42.0	Insurance claims and indemnities	34	58	63
44.0	Refunds.....	18	30	33
99.9	Total obligations	115,229	147,348	161,000

PERSONNEL SUMMARY

Direct:

Total number of full-time permanent positions.....	1,551	1,438	1,375
Total compensable workyears:			
Full-time equivalent employment	2,211	2,062	1,961
Full-time equivalent of overtime and holiday hours	132	123	117
Average GS grade	8.91	8.91	8.91
Average GS salary	\$ 25,127	\$ 25,692	\$ 25,881
Average salary of ungraded positions	\$ 25,373	\$ 25,944	\$ 26,134

OPERATION AND MAINTENANCE OF QUARTERS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-5219-0-2-302				
10.00	Direct program	4,765	6,916	5,500
	Reimbursable program	3	---	---
	Total obligations	4,768	6,916	5,500
Financing:				
11.00	Offsetting collections from Federal funds	-3	---	---
21.40	Unobligated balance start of year	-928	-1,516	---
24.40	Unobligated balance, end of year	1,516	---	---
60.0001	Appropriation (permanent, special fund)	5,352	5,400	5,500
Relations of obligations to outlays:				
71.00	Obligations incurred, net	4,765	6,916	5,500
72.40	Obligated balance available, start of year	693	764	2,384
74.40	Obligated balance, end of year	-764	-2,384	-2,404
90.00	Outlays	4,694	5,296	5,480

OBJECT CLASSIFICATION (in thousands of dollars)

Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	1,282	1,316	1,299
11.3	Other than full-time permanent	511	526	520
11.5	Other personnel compensation	24	26	26
11.8	Special personnel service payments	1	---	---
11.9	Total personnel compensation	1,818	1,868	1,845
Personnel benefits:				
12.1	Civilian	215	221	218
13.0	Benefits for former personnel	1	1	1
21.0	Travel and transportation of persons ...	46	81	58
22.0	Transportation of things	14	25	18
23.2	Rental payments to others	43	76	54
23.3	Communications, utilities, and miscellaneous charges	239	422	300
24.0	Printing and reproduction	1	2	1
25.0	Other services	1,009	1,780	1,267
26.0	Supplies and materials	1,154	2,042	1,455
31.0	Equipment	125	221	157
32.0	Lands and structures	82	145	103
41.0	Grants, subsidies, and contributions ...	1	2	1
42.0	Insurance claims and indemnities	2	4	3
44.0	Refunds	15	26	19
99.0	Subtotal direct obligations	4,765	6,916	5,500
99.0	Subtotal, reimbursable obligations ...	3	---	---
99.9	Total obligations	4,768	6,916	5,500

OPERATION AND MAINTENANCE OF QUARTERS

PERSONNEL SUMMARY

Identification code:	1986 actual	1987 est.	1988 est.
12-5219-0-2-302			
Direct:			
Total number of permanent positions.....	56	56	56
Total compensable workyears:			
Full-time equivalent employment	81	81	81
Full-time equivalent of overtime			
and holiday hours	---	---	---
Average GS grade	8.91	8.91	8.91
Average GS salary	\$ 25,194	\$ 25,761	\$ 25,950
Average salary of ungraded positions	\$ 22,341	\$ 22,844	\$ 23,011

FOREST SERVICE PERMANENT APPROPRIATIONS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-9921-0-2-852				
Program by activities:				
	1. Payment to Minnesota	1,401	747	716
	2. Payments to counties, National Grasslands	15,327	9,716	10,366
	3. Payments to State, National Forests fund	382,759	549,262	285,063
10.00	Total obligations (object class 41.0)	399,487	559,725	296,145
Financing:				
21.40	Unobligated balance available, start of year	-1	-285,846	---
24.40	Unobligated balance available, end of year	285,846	---	---
60.00	Budget authority (appropriation) (permanent, indefinite, special funds)	685,333	273,879	296,145
Relation of obligations to outlays:				
71.00	Obligations incurred, net	399,487	559,725	296,145
90.00	Outlays	399,487	559,725	296,145
Distribution of budget authority by account:				
	Payment to Minnesota	2,117	716	716
	Payment to counties, National Grasslands	19,888	9,356	10,366
	Payment to States, National Forests Fund	663,328	263,807	285,063
Distribution of outlays by account:				
	Payment to Minnesota	1,401	1,432	716
	Payment to counties, National Grasslands	15,327	13,917	10,366
	Payment to States, National Forests Fund	382,759	544,376	285,063

FOREST SERVICE PERMANENT APPROPRIATIONS
(Proposed for later transmittal, proposed legislation)

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-9921-2-2-852				
Program by activities:				
Direct program:				
	Payments to counties, National Grasslands	---	---	-6,601
	Payments to States, National Forest Fund	---	---	-263,488
10.00	Total obligations (object class 41.0)	---	---	-270,089
Financing:				
40.00	Budget authority (appropriation) (special fund)	---	---	-270,089
Relation of obligations to outlays:				
71.00	Obligations incurred, net	---	---	-270,089
90.00	Outlays	---	---	-270,089

Trust Funds

	1986 Actual	1987 Approp. Enacted to Date	1988 Base	1988 Estimate	Inc.(+) or Dec.(-) from 1987	Inc.(+) or Dec.(-) from Base
(Dollars in thousands)						
Cooperative work						
Knutson-Vandenberg (K-V)						
		^{1/}				
Reforestation	\$ 67,114	91,494	94,696	110,873	+19,379	+16,177
Thousand acres	215.1	255.6	255.6	278.0	+22.4	+22.4
FTE	1,055	1,140	1,140	1,400	+260	+260
Timber stand		^{1/}				
improvement	\$ 18,742	28,091	29,113	35,199	+7,108	+6,086
Thousand acres	100.7	182.4	182.4	182.0	-0.4	-0.4
FTE	280	364	364	393	+29	+29
Other	\$ 70,236	35,546	37,709	54,635	+19,089	+16,926
FTE	751	778	778	1,045	+267	+267
Subtotal, K-V	\$ 156,092	155,131	161,518	200,707	+45,576	+39,189
FTE	2,086	2,282	2,282	2,838	+556	+556
Cooperative						
work-other.....	\$ 46,425	42,485	44,857	49,662	+7,177	+4,805
FTE	812	859	859	906	+47	+47
Total, cooper-						
ative work....	\$ 202,517	197,616	206,375	250,369	+52,753	+43,994
FTE	2,898	3,141	3,141	3,744	+603	+603

^{1/} This amount reflects a 4.3 percent reduction in program level in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

Authorities

Various Public Laws including the Act of June 30, 1914, Cooperative Funds Act, as amended; and 7 U.S.C. 2269; 16 U.S.C. 498, 572, 537, 572a, and 1643a.

Cooperative work (trust fund) for other activities--investigation, protection, and improvement of National Forests.

(05-96) 12-8028 302 SAGR HAGR

No expiration date.

P.L. 71-319, Act of June 9, 1930, Knutson-Vandenberg Act, as amended (16 U.S.C. 576b). Section 3.

Funds deposited by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stands of timber on areas cutover by the purchaser.

(05-96) 12-8028 302 SAGR HAGR

No expiration date.

**Appropriation
Summary
Statement**

Funds received and deposited in trust from States, counties, timber sale operators, individuals, associations, and others are expended by the Forest Service as authorized by law and terms of the applicable trust agreements.

The work consists of protection and improvement of the National Forest System for the national forest users, research investigations, reforestation, and administration of private forest lands.

Cooperative Work, Knutson-Vandenberg

General

Funds deposited by timber sale purchasers are used primarily for reforestation, timber stand improvement, and other resource activities to improve the future productivity of the renewable resources on timber sale areas. Accomplishments for this program are also reported under activities in the National Forest System appropriation.

Reforestation, K-V

Objective

To reforest timber sale areas.

Program description

The Knutson-Vandenberg Act (K-V), as amended, provides that part of timber sale receipts may be used for needed reforestation work on timber sale areas. Funds to accomplish this work are deposited into a trust fund.

About 77 percent of the total reforestation work will be funded from K-V in FY 1988. (See graph in "Reforestation and Stand Improvement" section under National Forest System).

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Reforestation, K-V	\$ 94,696	110,873	+16,177
FTE	1,140	1,400	+260

An increase of \$16,177,000 is proposed from the 1988 base.

The program level of \$110,873,000 will provide the funding necessary to prepare sites and reforest 278,000 acres of national forest land, compared to 255,600 acres in FY 1987.

The increase of 22,400 acres is due to the increased harvest levels experienced in FY 1986 and expected in FY 1987.

The unavailability of herbicides continues to require more extensive reliance on alternative methods of site preparation (manual clearing, prescribed fire) to control competing vegetation. In the western regions, this has brought about a substantial increase in the basic reforestation contract costs.

Object class information

Salaries and benefits	+6,629
Travel	+103
Transportation of things	+84
Rent, communications, and utilities	+391
Other services	+5,491
Supplies, materials, and equipment	+2,767
Land and structures	+712
Total	+16,177

Timber Stand Improvement, K-V

Objective To improve timber growth and product quality on timber sale areas by thinning and release treatments of the residual stands.

Program description The Knutson-Vandenberg Act (K-V), as amended, provides that part of timber sale receipts may be used for timber stand improvement work. This work is financed from a trust fund similar to the financing for reforestation.

Increase for 1988			
	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Timber stand improvement, K-V	\$ 29,113	35,199	+6,086
FTE	364	393	+29

An increase of \$6,086,000 is proposed from the 1988 base.

This program level provides for the treatment of 182,000 acres of high priority stands that need either release or thinning. This acreage is about the same as the 182,400 acres in FY 1987 and is the result of the high harvest levels of national forest timber sales.

Contract costs continue to rise due to the use of hand and/or mechanical methods of treatment. The lack of herbicide use and the selection of a high number of thinning projects in the western regions also affects the total cost of K-V stand improvement work.

These K-V stand improvement projects are necessary to protect the reforestation investments made in these stands 3 to 5 years ago, and to concentrate growth in older stands on the most desirable residual trees.

Object class information	Salaries and benefits	+720
	Travel	+77
	Transportation of things	+65
	Rent, communications, and utilities	+301
	Other services	+3,814
	Supplies, materials, and equipment	+704
	Land and structures	+405
	Total	+6,086

Other K-V

Objective

To protect and improve all other resource values on timber sale areas in conjunction with timber management activities.

Program description

The Knutson-Vandenberg Act (K-V), as amended, provides that part of timber sale receipts may be used to protect and improve the future productivity of renewable resources in timber sale areas. The work includes sale-area improvements, maintenance and construction of soil and water protection measures, wildlife habitat improvements, and range management measures.

Timber sold since the K-V Act was amended (1976) is now being harvested, and collections for other resource work on timber sale areas have increased.

Increase for 1988

	1988 Base	1988 Estimate	Increase
	(Dollars in thousands)		
Other K-V	\$ 37,709	54,635	+16,926
FTE	778	1,045	+267

An increase of \$16,926,000 is proposed from the 1988 base.

As a result of the continued increase in the harvest of national forest timber sales, \$54,635,000 will provide for the wildlife, range, and soil and water resource activities prescribed to improve these resources on the timber sale area.

The increases for FY 1988 are primarily in wildlife habitat, and in soil and water improvements over a wide range of activities, such as specific wildlife nesting structures, stream improvements for fish, water bars, streambank restoration, and slope stabilization measures.

Program emphasis will be on stream channel restoration and enhancement for resident and anadromous fish, and on habitat improvement for game and nongame species in accordance with approved State comprehensive plans.

Emphasis also will be given to watershed improvement for maintaining or improving soil productivity and water quality.

Object class information

Salaries and benefits	+7,241
Travel	+383
Transportation of things	+192
Rent, communications, and utilities	+2,023
Other services	+5,387
Supplies, materials, and equipment	+1,481
Land and structures	+219
Total	+16,926

Cooperative Work, Other

Objective	To use deposits received from cooperators for protecting and improving resources of the National Forest System as authorized by trust agreements.
Program description	<p>1. <u>Administration, protection, construction and maintenance of National Forest System lands and interests therein, transportation system facilities, improvements, and resources.</u> Various laws including:</p> <p>The Act of June 30, 1914 (16 U.S.C. 498); The Act of April 24, 1950, as amended (16 U.S.C. 572); The Act of October 13, 1964, as amended (16 U.S.C. 532-537); The Act of June 6, 1968 (16 U.S.C. 693d; and The Act of July 4, 1968 (16 U.S.C. 471h) are used for deposits to these trust accounts for specific work done on behalf of the depositor.</p> <p>These deposits are used for the construction, reconstruction, and maintenance of roads, trails, and other improvements, and for scaling services, fire protection, and other resource purposes as authorized by law.</p> <p>Cooperative road maintenance deposits are made by commercial users of the Forest Road System in lieu of actually performing their commensurate share of road maintenance. These deposits are used in conjunction with the road maintenance appropriation, to provide maintenance of system roads by the Forest Service.</p> <p>2. <u>Forest and rangeland renewable resources research.</u> The Act of June 30, 1914 (16 U.S.C. 498), and the Act of June 30, 1978 (16 U.S.C. 1643), authorizes acceptance of deposits for forestry research. Deposits are received from State and other public agencies, industrial associations, and other private agencies to finance research projects of mutual interest and benefit. The deposits may be made in a single sum or on a continuing basis, and may partially or wholly cover the research cost. Cooperative research projects may involve any aspect of forestry, and vary widely as to scope and duration.</p> <p>3. <u>Administration, protection, construction, and improvement of non-Federal lands.</u> The Act of April 24, 1950 (16 U.S.C. 572), authorizes acceptance of deposits for administering and protecting non-Federal land within or near the National Forests.</p> <p>These deposits are made by owners of non-Federal lands intermingled with or adjacent to National Forests who wish their lands managed according to good forest management practices, including reforestation.</p> <p>Work done with deposits includes fire protection of private lands (usually in small tracts) intermingled with Federal ownership. This arrangement helps both parties because it would be uneconomical for private landowners to set up fire control organizations and because the Forest Service might otherwise have to suppress fires on adjoining ownerships to protect Federal land.</p>

**Increase
for 1988**

	<u>1988 Base</u>	<u>1988 Estimate</u>	<u>Increase</u>
	(Dollars in thousands)		
Cooperative Work,			
Other	\$ 44,857	49,662	+4,805
FTE	859	906	+47

An increase of \$4,805,000 is proposed from the 1988 base.

This increase reflects the increased deposits made by timber purchasers as a result of increased harvest activities, and the increased participation by other National Forest users for activities they expect the Forest Service to perform.

These additional activities include needed road maintenance associated with increased timber harvest levels, cooperative fire protection work with various States, and research efforts in conjunction with ongoing projects.

**Object class
information**

Salaries and benefits	+1,170
Travel	+80
Transportation of things	+51
Rent, communications, and utilities	+159
Other services	+2,085
Supplies, materials, and equipment	+474
Land and structures	+786
Total	+4,805

Reforestation Trust Fund

**Appropriation
Summary
Statement**

A trust fund was established for reforestation and timber stand improvement when appropriated funds do not meet total needs of fiscal year programs.

Authority

P.L. 96-451, Act of October 14, 1980, as amended (16 U.S.C. 1606 a(d)).
Section 303.

Establishment of Reforestation Trust Fund to be held by the Secretary of Treasury. Funds to be invested and provided to the Secretary of Agriculture based on an estimated fiscal year need necessary to accomplish the treatment of acreage in the reforestation program.

(05-96) 20-8046-0-7-302 SENR HWME HMMF

Objective

To prevent a backlog in reforestation and timber stand improvement work.

**Program
description**

Funds are to be used to accomplish the reforestation and timber stand improvement program as described in the reforestation and stand improvement section of the National Forest System appropriation.

In FY 1988, \$30,000,000 of these funds will be needed to do the planned reforestation and timber stand improvement work. Funds are transferred by Treasury to cover expenditures as they occur to the National Finance Center.

TRUST FUNDS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
12-9973-0-7-302				
Program by activities:				
Direct program:				
	Cooperative work, KV.....	124,007	166,724	208,259
	Cooperative work, other.....	42,089	43,413	51,531
10.00	Total obligations	<u>166,096</u>	<u>210,137</u>	<u>259,790</u>
Financing:				
17.00	Recovery of prior year obligations	-6,073	---	---
	Unobligated balance available, start of year:			
21.40	Treasury balance	-505,303	-547,796	-535,275
	Unobligated balance available, end of year:			
24.40	Treasury balance	<u>547,796</u>	<u>535,275</u>	<u>525,854</u>
60.00	Budget authority (appropriation) (permanent indefinite)	<u>202,517</u>	<u>197,616</u>	<u>250,369</u>
Relation of obligations to outlays:				
71.00	Obligations incurred, net	166,096	210,137	259,790
72.40	Obligated balance, start of year ...	-101,700	-70,516	-50,484
74.40	Obligated balance, end of year	70,516	50,484	33,256
78.00	Adjustment in unexpired accounts ...	<u>-6,073</u>	<u>---</u>	<u>---</u>
90.00	Outlays	<u>128,839</u>	<u>190,105</u>	<u>242,562</u>

OBJECT CLASSIFICATION (in thousands of dollars)

Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	46,712	51,772	60,790
11.3	Other than full-time permanent	14,580	16,156	18,984
11.5	Other personnel compensation	2,644	2,922	3,444
11.8	Special personnel service payments	119	134	158
11.9	Total personnel compensation	<u>64,055</u>	<u>70,984</u>	<u>83,376</u>
Personnel benefits:				
12.1	Civilian	8,450	9,364	10,999
13.0	Benefits for former personnel	2,338	2,591	3,042
21.0	Travel and transportation of persons ...	1,603	2,241	2,862
22.0	Transportation of things	1,148	1,605	2,050
23.1	Standard level user charges	836	773	902
23.2	Rental payments to others	1,340	1,874	2,393
23.3	Communications, utilities, and miscella- neous charges	3,619	5,060	6,463
24.0	Printing and reproduction	140	196	250
25.0	Other services	52,462	73,355	93,690
26.0	Supplies and materials	16,879	23,601	30,143
31.0	Equipment	2,582	3,610	4,611
32.0	Lands and structures	10,040	14,038	17,929
41.0	Grants, subsidies, and contributions ...	17	24	31
42.0	Insurance claims and indemnities	87	122	156
44.0	Refunds	500	699	893
99.9	Total obligations	<u>166,096</u>	<u>210,137</u>	<u>259,790</u>

TRUST FUNDS

PERSONNEL SUMMARY

Identification code:		1986 actual	1987 est.	1988 est.
12-9973-0-7-302				
Direct:				
Total number of full-time permanent positions.....				
		2,019	2,176	2,608
Total compensable workyears:				
Full-time equivalent employment				
		2,898	3,141	3,744
Full-time equivalent of overtime and holiday hours				
		99	107	128
Average GS grade				
		8.81	8.81	8.81
Average GS salary				
	\$	24,412	\$ 24,961	\$ 25,144
Average salary of ungraded positions				
	\$	23,560	\$ 24,090	\$ 24,267

REFORESTATION TRUST FUND

PROGRAM AND FINANCING (in thousands of dollars)

Identification code:		1986 actual	1987 est.	1988 est.
20-8046-0-7-302				
Program by activities:				
00.91	Total direct program	30,047	30,007	35,000
01.01	Reimbursable program	185	---	---
10.00	Total obligations	30,232	30,007	35,000
Financing:				
Offsetting collections from:				
11.00	Federal funds	-185	---	---
21.40	Unobligated balance start of year	-4,749	-5,007	-5,000
24.40	Unobligated balance, end of year	5,007	5,000	---
60.00	Budget authority (appropriation) (permanent)	30,305	30,000	30,000
Relations of obligations to outlays:				
71.00	Obligations incurred, net	30,047	30,007	35,000
72.40	Obligated balance, start of year	---	---	265
74.40	Obligated balance, end of year	---	-265	-5,265
90.00	Outlays	30,047	29,742	30,000

OBJECT CLASSIFICATION (in thousands of dollars)

Direct obligations:				
Personnel compensation:				
11.1	Full-time permanent	12,453	12,733	13,000
11.3	Other than full-time permanent	3,390	3,446	3,516
11.5	Other personnel compensation	569	582	1,057
11.8	Special personnel service payments	145	148	157
11.9	Total personnel compensation	16,557	16,909	17,730
Personnel benefits:				
12.1	Civilian	1,975	2,019	2,136
13.0	Benefits for former personnel	1,269	1,298	1,476
21.0	Travel and transportation of persons ...	117	120	152
22.0	Transportation of things	75	77	98
23.1	Standard level user charges	147	150	154
23.2	Rental payments to others	72	67	85
23.3	Communications, utilities, and miscella- neous charges	165	172	217
24.0	Printing and reproduction	3	3	4
25.0	Other services	6,420	5,810	8,663
26.0	Supplies and materials	2,412	2,481	3,143
31.0	Equipment	290	306	387
32.0	Lands and structures	526	574	729
41.0	Grants, subsidies, and contributions ...	3	3	4
42.0	Insurance claims and indemnities	16	18	23
99.0	Subtotal direct obligations	30,047	30,007	35,000
99.0	Subtotal, reimbursable obligations ...	185	---	---
99.9	Total obligations	30,232	30,007	35,000

REFORESTATION TRUST FUND

PERSONNEL SUMMARY

Identification code:	20-8046-0-7-302	1986 actual	1987 est.	1988 est.
Direct:				
Total number of permanent positions.....		---	502	502
Total compensable workyears:				
Full-time equivalent employment		---	725	725
Full-time equivalent of overtime				
and holiday hours		---	25	25
Average GS grade		---	8.98	8.98
Average GS salary		---	\$ 25,535	\$ 25,722
Average salary of ungraded positions		---	\$ 20,469	\$ 20,620

Human Resource Programs

Objective

To provide human and natural resource benefits by administering and hosting programs in work, training, and education for the unemployed, underemployed, elderly, young, and others with special needs.

Program description

The Forest Service participates in cooperative employment programs such as those authorized by P.L. 97-300, the Job Training Partnership Act of 1982 (Job Corps and miscellaneous hosted programs); P.L. 93-408, the Youth Conservation Corps; P.L. 89-73, the Older Americans Program, as amended; and P.L. 92-300, the Volunteers in the National Forests, as amended. About 80,242 people are expected to participate in Forest Service administered employment and volunteer programs during FY 1987.

Following is a brief description of HRP programs for FY 1986 through FY 1988.

- Job Corps. In agreement with the Department of Labor, the Forest Service operates 18 Job Corps Civilian Conservation Centers (7 of which are coeducational) providing basic education and job training to disadvantaged youth. The main purpose of the Centers is to produce graduates who are able to find productive work, reenter school, or join the military. Enrollees receive room, board, clothing, skills training, education, and a monthly allowance instead of wages.

In the 1985 program year (July 1, 1985 to June 30, 1986), 9,042 young men and women participated in the program funded, which was at \$56.4 million. In addition to acquiring job skills, these Job Corps participants completed work valued at \$19.6 million.

In the 1986 program year (July 1, 1986 to June 30, 1987), about 9,642 young men and women will participate in the program, which was funded at \$57.1 million. The value of accomplished work is anticipated to be \$21 million.

In the 1987 program year (July 1, 1987 to June 30, 1988), we anticipate a \$57.5 million Job Corps program. The expected value of work is \$21.4 million.

- Youth Conservation Corps. The Youth Conservation Corps (YCC) is a summer employment program for young men and women, aged 15 through 18, who work, learn, and earn together on natural resource conservation and management projects. This program is also discussed in the National Forest System appropriation.

In FY 1986, the Forest Service was authorized to use not less than \$3.2 million for high priority projects to be carried out by the YCC program. The program served 2,107 young people, of which 14 percent were minorities and 45 percent were women. These participants accomplished 342 person-years of work valued at \$4 million, with a return of \$1.14 on every YCC invested dollar.

For FY 1987, about 1,500 young people are expected to participate in a \$2.0 million program funded from benefiting Forest Service programs. Conservation work valued at about \$3 million will be carried out.

A YCC program is not proposed in FY 1988.

- Senior Community Service Employment Program (SCSEP). The Forest Service, in cooperation with the Department of Labor, sponsors this program authorized under Title V of the Older Americans Act. The program has three fundamental purposes: community service, part-time employment and supplemental income, and training and transition of participants to the private sector labor market. The program employs economically disadvantaged persons age 55 and older and fosters a renewed sense of self-worth and community involvement among traditionally poor and hard-to-employ older individuals.

In program year 1985, (July 1, 1985, to June 30, 1986) this program was funded at \$21.8 million and employed 6,156 persons (21 percent minorities and 35 percent women). Participants completed 2,829 person-years of work valued at \$33 million. The Government realized a return of \$1.51 for each dollar invested.

The SCSEP program is funded at \$20.9 million for program year 1986 (July 1, 1986 through June 30, 1987).

For the next three program years, the Forest Service SCSEP program is expected to remain static.

- Volunteers in the National Forests. The Volunteers program provides help in natural resource protection and management at nominal costs. The program offers individuals the opportunity to contribute their services to assist in managing the Nation's natural resources.

The Touch America Program (TAP), a component of the volunteer program, includes special emphasis on participation by youth aged 14 to 17. TAP is a partnership of private sector organizations sponsoring teenage youths to do conservation work. During FY 1986, 6,016 youths participated in TAP.

In FY 1986, 51,720 volunteers served in the Forest Service, including TAP participants. The appraised value of work performed by volunteers was \$23 million.

In FY 1987 and FY 1988, the Volunteers program will continue to receive strong emphasis. It is anticipated that there will be a volunteer participation of 54,000 in FY 1987 and of 57,000 in FY 1988.

- Hosted programs. The Forest Service also serves as a host agency by providing work opportunities for programs administered by State and local governments. In FY 1986, 775 person-years of work were completed, valued at \$9.7 million. There were 6,394 participants in these programs.

In FY 1987, about 9,000 people will participate in hosted programs doing conservation work valued at about \$11 million.

A slight increase over FY 1987 is estimated for the FY 1988 program.

Summary of Human Resource Programs
FY 1986/PY 1985 Actual

Activity	Program Funding (Dollars in millions)	Value of Work Accomplished (Dollars in millions)	Number of Participants	Percent Women Minority	Person-Years Accomplished
Youth Conservation Corps	Unfunded <u>1/</u>	\$ 4.0	2,107	45	14
Job Corps <u>2/</u>	\$ 56.4	19.6	9,042	9	52
Senior Community Service Employment Program <u>2/</u>	21.8	33.0	6,156	35	21
Volunteer <u>3/</u>	Unfunded	23.0	51,720	30	7
Hosted Programs	Unfunded	<u>9.7</u>	<u>6,394</u>	<u>19</u>	<u>36</u>
Total	\$ 78.2	\$ 89.3	75,419	--	--
					9,645

1/ Congressional earmark of not less than \$3.2 million to be expended from benefiting program funds in National Forest System. Operated a \$3.5 million program.

2/ Statistics for 1985 program year (July 1, 1985 through June 30, 1986).

3/ Includes youth participation in the Touch America Program.

Summary of Human Resource Programs
FY 1987 and PY 1986 Estimates

Activity	Program Funding (Dollars in millions)	Value of Work Accom- plished (millions)	Number of Participants	Percent		Person- Years Accom- plished
				Women	Minority	
Youth Conser- vation Corps	Unfunded <u>1/</u>	\$ 3.0	1,500	45	15	300
Job Corps <u>2/</u>	\$ 57.1	21.0	9,642	12	55	3,866
Senior Community Service Employment Program <u>2/</u>	20.9	33.0	6,100	40	21	2,800
Volunteers <u>3/</u>	Unfunded	24.2	54,000	37	11	2,000
Hosted Programs	Unfunded	<u>11.0</u>	<u>9,000</u>	<u>20</u>	<u>41</u>	<u>1,000</u>
Total	\$ 78.0	\$ 92.2	80,242	--	--	9,966

1/ Congressional earmark of not less than \$1.0 million to be expended from all Forest Service benefiting program funds.

2/ Statistics estimated for 1986 program year (July 1, 1986 through June 30, 1987).

3/ Include youth participation in the Touch America Project.

Summary of Human Resource Programs
FY 1988 and PY 1987 Estimates

Activity	Program Funding (Dollars in millions)	Value of Work Accomplished	Number of Participants	Percent Women	Percent Minority	Person-Years Accomplished
Youth Conservation Corps <u>1/</u>	\$ --	\$ --	--	--	--	--
Job Corps <u>2/</u>	57.5	21.4	9,542	9	52	3,866
Senior Community Service Employment Program <u>2/</u>	21.8	33.5	6,200	40	22	2,850
Volunteers <u>3/</u>	Unfunded	25.4	57,000	39	12	2,100
Hosted Programs	Unfunded	12.0	10,000	23	42	1,100
TOTAL	\$ 79.3	\$ 92.3	82,742	--	--	9,916

1/ A YCC program is not proposed for FY 1988.

2/ Statistics for July 1, 1987 through June 30, 1988 are based on program 1987 level.

3/ Includes youth participation in the Touch America Project.

**Work Accomplishment by Volunteers, YCC, and Hosted Programs
for Selected Activities**

FY 1986 and PY 1985 Actual

Activities and Unit of Measure	Volunteers	YCC	1/ SCSEP		Other	Total
Recreation management - PAOT (Persons-at-one-time) days	2,811,057	191,937	5,828,293		265,908	9,097,195
Fish and wildlife habitat improvement (acres)	2,573	556	348		776	4,253
Fish and wildlife habitat improvement (structures)	359	250	107		609	1,325
Range management (acres)	11	81	479		5	576
Noxious farm weed control (acres)	7	163	80		809	1,059
Reforestation (acres)	1,117	215	76		83	1,491
Timber stand improvement (acres)	10	746	178		568	1,502
Water and soil resource improvement (acres)	35	20	15		17	87
Property boundary location (miles)	5	3	--		--	8
Trail construction and reconstruction (miles)	105	26	4		36	171
Fuel treatment management (acres)	5	225	75		762	1,067

1/ Estimated accomplishment for program year 1985 (July 1, 1985 through June 30, 1986).

**Work Accomplishment by Human Resource Programs
for Selected Activities**

FY 1987 and PY 1986 Estimates

Activities and Unit of Measure	Volunteers	YCC	1/ SCSEP		Other	Total
Recreation management - PAOT (Persons-at-one-time) days	2,895,389	134,356		6,003,142	273,885	9,306,772
Fish and wildlife habitat improvement (acres)	2,650	389		358	799	4,196
Fish and wildlife habitat improvement (structures)	370	175		111	628	1,284
Range management (acres)	12	57		493	5	567
Noxious farm weed control (acres)	8	115		83	834	1,040
Reforestation (acres)	1,151	151		78	85	1,465
Timber stand improvement (acres)	11	522		183	585	1,301
Water and soil resource improvement (acres)	36	14		15	18	83
Property boundary location (miles)	6	2		--	--	8
Trail construction and reconstruction (miles)	108	18		5	37	168
Fuel treatment management (acres)	6	158		78	785	1,027

1/ Estimated accomplishments for program year 1986 (July 1, 1986 through June 30, 1987).

**Work Accomplishment by Human Resource Programs
for Selected Activities**

FY 1988 and PY 1987 Estimates

Activities and Unit of Measure	Volunteers	1/ YCC	2/ SCSEP	Other	Total
Recreation management - PAOT (Persons-at-one-time) days	2,953,297	--	6,123,205	279,363	9,355,865
Fish and wildlife habitat improvement (acres)	2,703	--	366	815	3,884
Fish and wildlife habitat improvement (structures)	378	--	114	641	1,133
Range management (acres)	13	--	503	6	522
Noxious farm weed control (acres)	9	--	85	851	945
Reforestation (acres)	1,174	--	80	87	1,341
Timber stand improvement (acres)	12	--	187	597	796
Water and soil resource improvement (acres)	37	--	16	19	72
Property boundary location (miles)	7	--	--	--	7
Trail construction and reconstruction (miles)	111	--	6	38	155
Fuel treatment management (acres)	7	--	80	801	888

1/ A YCC program is not proposed for 1988.

2/ Estimated accomplishments for program year 1987 (July 1, 1987 through June 30, 1988).

Language Changes

Proposed change in language:

FOREST RESEARCH

1. For necessary expenses of forest research as authorized by law, [\$128,882,000] \$122,212,000.[, of which \$6,000,000 shall remain available until expended for competitive research grants, as authorized by section 5 of Public Law 95-307.]

This change removes the reference to competitive research grants, which are not proposed in FY 1988.

Proposed change in language:

STATE AND PRIVATE FORESTRY

1. For necessary expenses of cooperating with, and providing technical [and financial] assistance to States, Territories, possessions, and others; and for forest pest management activities, [\$58,946,000] \$35,434,000, to remain available until expended[, to carry out activities authorized in Public Law 95-313:
2. Provided, That] as authorized by law, of which a grant of \$2,800,000 shall be made to the State of Minnesota for the purposes authorized by section 6 of Public Law 95-495.

The first change removes provision for financial assistance through grants or cooperative agreements to States. All State grants, except for \$2.8 million to Minnesota for Boundary Waters Canoe Area activities, are proposed to be eliminated.

The second change removes specific use of technical assistance funds to activities authorized under Public Law 95-313. Other authorities provide for these activities, and this language could be interpreted to restrict use specifically to those authorized under that one law.

Proposed change in language:

NATIONAL FOREST SYSTEM

- For necessary expenses of the Forest Service, not otherwise provided for, for management, protection, improvement, and utilization of the National Forest System, and for repayment of advances made in the preceding fiscal [year] years
1. pursuant to 16 U.S.C. 556d for forest fire [protection] fighting and emergency
 2. rehabilitation of National Forest System lands, and [including] for administrative
 3. expenses associated with the management of funds provided under the heads "Forest Research", "State and Private Forestry", "National Forest System", "Construction", and "Land Acquisition", [\$1,158,294,000 of which \$263,323,000 for reforestation and timber stand improvement, cooperative law enforcement, firefighting, and maintenance of forest development roads and trails shall remain available for
 4. obligation until September 30, 1988.] \$1,016,417,000, to remain available until expended.
 5. [The Forest Service is to continue to complete as expeditiously as possible development of land and resource management plans to meet the requirements of the National Forest Management Act of 1976 (NFMA). Notwithstanding the date in section 6(c) of the NFMA (16 U.S.C. 1600), the Forest Service may continue the management of units of the National Forest System under existing land and resource management plans pending the completion of plans developed in accordance with the Act. Nothing shall limit judicial review of particular activities on management units of the National Forest System: Provided, however, That there shall be no challenges to any existing plan on the sole basis that the plan in its entirety is outdated: Provided further, That any and all particular activities to be carried out under existing plans may nevertheless be challenged.]

The first change is proposed to cover obligations from prior years that supplementals have not covered. These obligations would include such items as accident claims, late billings from cooperators and States, and actual costs exceeding estimated obligations.

The second change corrects a technical error. The budget line item forest fire protection does not receive payment of advances; the correct budget line item is forest fire fighting.

The third change corrects a grammatical error. This change separates administrative expenses from National Forest System and makes it clear that other accounts not within National Forest System are associated with these expenses.

The fourth change is proposed to make the National Forest System appropriation available until expended.

Each year about 750 accounting stations in the Forest Service must set up detailed year-end control records to avoid over or underspending their NFS allocations. Also, certain types of purchases are prohibited during the final 60 days of the fiscal year because of notification requirements in the Commerce Business Daily prior to contract execution. This change would eliminate the need for this notification. Changing the NFS appropriation from an annual to a no-year fund will simplify accounting procedures and afford more flexibility.

Another reason for converting to a no-year appropriation for NFS is Treasury accounting difficulties. For FY 1985 and future fiscal years, Treasury has told us that supplementals and rescissions will be added to or subtracted from the majority account within an appropriation, unless appropriation language specifically directs otherwise. For FY 1985, this meant that the rescission was taken from only the annual accounts--the two year accounts were untouched. Converting the NFS appropriation to a no-year account will eliminate the need for appropriation language to specify to Treasury how the funds are to be distributed.

We have also found that contractors are willing to bid lower prices on multiyear contracts than they are on an annual basis. This change would permit multiyear contracting and save the Federal government money on bid prices.

The fifth change is proposed to remove language which is substantially legislative.

Proposed change in language:

CONSTRUCTION

For necessary expenses of the Forest Service, not otherwise provided for, for construction, [\$261,436,000] \$221,543,000 to remain available until expended, of which [\$25,632,000] \$15,894,000 is for construction and acquisition of buildings and other facilities; and [\$236,104,000] \$205,649,000 is for construction of forest roads and trails by the Forest Service as authorized by 16 U.S.C. 532-538 and 23 U.S.C. 101 and 205: Provided, That funds becoming

1. available in fiscal year [1987] 1988 under the Act of March 4, 1913 (16 U.S.C. 501), shall be transferred to the General Fund of the Treasury of the United
2. States: [Provided further, That the Forest Service shall achieve a 5 per centum reduction in the average cost per timber road mile as compared to the adjusted fiscal year 1985 average cost by a combination of the following two actions: (1) the application of road construction standards used to construct or reconstruct Forest Service timber roads, purchaser credit roads, or purchaser elect roads, and (2) reducing the direct personnel cost of designing and constructing timber roads to these standards: Provided further, That the Forest Service shall take administrative cost saving actions, including reductions in indirect personnel, overhead charges, and productivity improvements, in fiscal year 1987 in a manner so as to achieve a 5 per centum reduction in the average cost per timber road mile as compared to the adjusted fiscal year 1985 average cost: Provided further, That such actions shall be taken so as to achieve these 5 per centum reductions in each Forest Service region.] Provided further, That no more than \$117,799,000, to remain available without fiscal year limitation, shall be obligated for the construction of forest roads by timber purchasers.
- 3.

4. [Pursuant to section (b)(2), the Action of December 23, 1980, Public Law 96-581 (94 Stat. 3372), not to exceed \$300,000 from the sale of 18.13 acres to the Flagstaff Medical Regional Center, Flagstaff, Arizona, are hereby appropriated and made available, until expended, to the Forest Service for the specific purpose of contract administration and overruns resulting from the construction of administrative improvements at the Mt. Elden Work Center, Flagstaff, Arizona; Provided, That the Secretary of Agriculture shall ensure that outlays associated with such action shall not cause the total outlays during fiscal year 1987 from Forest Service land acquisition and construction activities and construction activities in Region 3 (including Arizona and New Mexico) to exceed the total that otherwise would have occurred as a result of enactment of this or previous appropriations Acts.]
5. [There is authorized to be appropriated out of the Highway Trust Fund (other than the Mass Transit Account), \$9,915,000 to be transferred to the Forest Service for road construction to serve the Mount St. Helens National Volcanic Monument, Washington: Provided, That the funds authorized by this section shall be available for obligation in the same manner and to the same extent as if such funds were apportioned under chapter 1 of title 23, United States Code, except the Federal share of the cost of this project shall be 100 per centum, and such funds shall remain available until expended: Provided further, That the foregoing shall not alter the amount or funds of contract authority that would otherwise be available for road construction to serve any State other than the State of Washington.]

The first change updates the fiscal year reference for 10 percent of National Forest receipts that are made available to offset appropriations for road and trail improvements.

The second change removes a one-time amendment to authorizing legislation. This language causes a considerable amount of extra staff time in tracking the unit costs. The standard reporting systems do not break these costs out in the segments specified.

The third change restores the purchaser credit limitation. In FY 1987, carryover authority will be used. We project that insufficient carryover authority will remain for use in FY 1988.

The fourth change removes a one-time amendment to authorizing legislation. Funds received in FY 1987 are sufficient for completion of the Mt. Elden Work Center.

The fifth change removes a one-time amendment to authorizing legislation. The contract authority received in FY 1987 provides sufficient obligating authority to initiate preparations for road construction in the Mount St. Helens National Volcanic Monument.

Proposed change in language:

LAND ACQUISITION

- For expenses necessary to carry out the provisions of the Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 4601-4-11), including administrative expenses, and for acquisition of land or waters, or interest therein, in accordance with statutory authority applicable to the Forest Service, [\$49,236,000] \$3,907,000, to be derived from the Land and Water Conservation Fund,
1. [and \$3,000,000 for acquisition of land and interests therein in the Columbia River Gorge, Oregon and Washington, as depicted on a map entitled "Columbia Gorge Acquisitions-1986" on file with the Forest Service, pursuant to the Department of Agriculture Organic Act of 1956 (7 U.S.C. 428(a)),] to remain available until expended.

This change removes a one-time amendment to authorizing legislation. Funds received in FY 1987 are sufficient for acquisition of the Columbia River Gorge.

Proposed change in language:

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

For acquisition of lands within the exterior boundaries of the Cache, [and] Uinta, and Wasatch National Forests, Utah; the Toiyabe National Forest, Nevada; and the Angeles, San Bernardino, and Cleveland National Forests, California, as authorized by law, \$966,000, to be derived from forest receipts.

This change is a technical correction. It adds Wasatch National Forest to be consistent with the legislation that funds both the Uinta and Wasatch National Forests.

Proposed change in language:

RANGE BETTERMENT FUND

For necessary expenses of range rehabilitation, protection, and improvement, 50 per centum of all moneys received during the prior fiscal year, as fees for grazing domestic livestock on lands in National Forests in the sixteen Western States, pursuant to section 401(b)(1) of Public Law 94-579, as amended, to remain available until expended[.], of which not to exceed 6 percent shall be available for administrative expenses associated with on-the-ground range rehabilitation, protection, and improvements.

This change will cover administrative costs to do the planning required for efficient expenditure of the Range Betterment Fund. At present, the planning and support costs for administering the fund have been borne by the Range Management appropriation. This change would be consistent with current provisions applicable to the Bureau of Land Management.

Proposed change in language:

[MISCELLANEOUS TRUST FUNDS]
GIFTS, DONATIONS, AND BEQUESTS FOR FOREST AND RANGELAND RESEARCH

For expenses authorized by 16 U.S.C. 1643(b), \$90,000 to remain available until expended, to be derived from the fund established pursuant to the above Act.

This change more accurately reflects activities carried out within this appropriation.

Administrative Provisions

Amend the following provision:

Appropriations to the Forest Service for the current fiscal year shall be available for: (a) purchase of not to exceed [245] 186 passenger motor vehicles of which [eight] nine will be used primarily for law enforcement purposes and of which [235] 179 shall be for replacement only; of which acquisition of [148] 157 passenger motor vehicles shall be from excess sources, and hire of such vehicles; operation and maintenance of aircraft, the purchase of not to exceed two for replacement only, and acquisition of [58] 50 aircraft from excess sources; notwithstanding other provisions of law, existing aircraft being replaced may be sold, with proceeds derived or trade-in value used to offset the purchase price for the replacement aircraft; (b) services pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed \$100,000 for employment under 5 U.S.C. 3109; (c) uniform allowances for each uniformed employee of the Forest Service, not in excess of \$400 annually; (d) purchase, erection, and alteration of buildings and other public improvements (7 U.S.C. 2250); (e) acquisition of land, waters, and interests therein, pursuant to the Act of August 3, 1956 (7 U.S.C. 428a); (f) for expenses pursuant to the Volunteers in the National Forest Act of 1972 (16 U.S.C. 558a, 558d, 558a note); and (g) for debt collection contracts in accordance with 31 U.S.C. 3718(c).

Delete the following provision:

[None of the funds made available under this Act shall be obligated or expended to change the boundaries of any region, to abolish any region, to move or close any regional office for research, State and private forestry, or National Forest System administration of the Forest Service, Department of Agriculture, without the consent of the House and Senate Committees on Appropriations and the Committee on Agriculture, Nutrition, and Forestry in the United States Senate and the Committee on Agriculture in the United States House of Representatives.]

This change removes language that restricts the flexibility needed to make changes to improve organizational effectiveness and efficiency and reduce general administration costs. The Forest Service will continue to consult with the Appropriations Committees, Committees on Agriculture, Nutrition, and Forestry, and individual members of Congress concerned, prior to effecting any such change.

No change to the following provision:

Any appropriations or funds available to the Forest Service may be advanced to the National Forest System appropriation for the emergency rehabilitation of burned-over lands under its jurisdiction.

Delete the following provision:

[Appropriations and funds available to the Forest Service shall be available to comply with the requirements of section 313(a) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1323(a)).]

This change removes language no longer needed because of enactment of the Administrative Provision to reimburse employees for costs of licenses and certification fees in the FY 1987 Appropriation Act.

Delete the following provision:

[The appropriation structure for the Forest Service may not be altered without advance approval of the House and Senate Committees on Appropriations.]

This change removes the legal requirement that the Forest Service consult with the House and Senate Committees on Appropriations before changing the appropriation structure. The Forest Service will continue to consult with the Committees before implementing any changes.

No change to the following provision:

Notwithstanding any other provision of law, any appropriations or funds available to the Forest Service may be used to reimburse employees for the cost of State licenses and certification fees pursuant to their Forest Service position and that are necessary to comply with State laws, regulations, and requirements.

Delete the following provision:

[Notwithstanding any other provision of law, the Secretary of Agriculture is hereafter authorized to use from any receipts from the sale of timber a sum equal to the cost of construction of roads under the purchaser election program as described and authorized in section 14(i) of the National Forest Management Act of 1976.]

This change removes language that the Agency believes is continuing authority and would no longer be needed in the annual appropriation act.

Amend the following provision:

- Funds appropriated to the Forest Service shall be available for assistance to or through the Agency for International Development and the Office of International Cooperation and Development in connection with forest and rangeland research,
1. [and] technical information, and assistance in foreign countries.

This change is a grammatical correction. By making this change, it will be clear that funds are available for both research and the distribution of technical information.

Amend the following provision:

- Funds previously appropriated for timber salvage sales may be recovered from receipts deposited for use by the applicable national forest and credited to the Forest Service Permanent Appropriations to be expended for timber salvage sales
1. from any national forest[: Provided, That no less than \$26,000,000 shall be made available to the Forest Service for obligation in fiscal year 1987 from the Timber Salvage Sales Fund appropriation].

This change removes an appropriation limitation which provided for an increase in the salvage sale volume to be offered in FY 1987.

Delete the following provision:

[None of the funds made available to the Forest Service under this Act shall be subject to transfer under the provisions of section 702(b) of the Department of Agriculture Organic Act of 1944 (7 U.S.C. 2257) or 7 U.S.C. 147b unless the proposed transfer is approved in advance by the House and Senate Committees on Appropriations in compliance with the reprogramming procedures contained in House Report 99-714.]

This change will enable the Forest Service to respond to unforeseen events that necessitate immediate action. We will continue to follow the Committees' guidelines for the reprogramming of funds.

No change to the following provision:

No funds appropriated to the Forest Service shall be transferred to the Working Capital Fund of the Department of Agriculture without the approval of the Chief of the Forest Service.

Delete the following provision:

[Funds available to the Forest Service shall be available to conduct a program of not less than \$1,000,000 for high priority projects within the scope of the approved budget which shall be carried out by Youth Conservation Corps as if authorized by the Act of August 13, 1970, as amended by Public Law 93-408.]

This change removes the language for the Youth Conservation Corps, which is not proposed for fiscal year 1988.

Delete the following provision:

[The Forest Service is authorized and directed to negotiate, within 90 days after the enactment of this Act, settlement of claims against the United States resulting from a forest fire in the Black Hills National Forest: Provided, That notwithstanding any other provision of law, the Secretary of the Treasury is authorized and directed to pay the amount of the settlement from the Claims, Judgments, and Relief Act Fund (Public Law 95-26).]

This change removes language no longer required. Negotiation and settlement of claims will be completed in FY 1987.

Delete the following provision:

[In order to provide for more comprehensive and effective management, the exterior boundary of the Gifford Pinchot National Forest in the State of Washington is hereby modified as generally depicted on a map entitled "Boundary Modification, Gifford Pinchot National Forest", dated August 1986. Such map and legal description of the boundary modification of said National Forest shall be on file and available for public inspection in the Office of the Chief, Forest Service, Department of Agriculture and in appropriate field offices of that agency. This boundary modification shall not affect valid existing rights or interests in existing land use authorizations.]

This change removes a one-time amendment and is no longer required. The map entitled "Boundary Modification, Gifford Pinchot National Forest" will be completed and on file in FY 1987.

Delete the following provision:

[No more than \$500,000 made available to the Forest Service for obligation in fiscal year 1987 shall be expended to support Washington office staff in the development of the RPA: Provided, That this shall not reduce funds available for the development of forest plans pursuant to the National Forest Management Act of 1976.]

This change removes a one-time provision and is no longer required. FY 1987 immediately followed completion of the 1985 RPA Program update and the limitation was on funds available for planning the 1990 update process. Continuation of the limitation would seriously diminish the quality of the 1990 Program update and would delay completion of the update by 2-3 years.

FY 1987 is the year not only for planning the 1990 update, but also for bringing forest planning and national planning together. The provision restricts work in FY 1987 to actual planning for the 1990 update, but defers actual data collection and analysis to bring forest planning and national planning together. Further limitations would defer data collection to accomplish this process or require that forest planning capability not be included in national planning.

As written, the limitation applies to the Assessment as well, and the reduced funding would delay critical work necessary for development of the Assessment draft. The draft is scheduled for release in mid-1988 and this funding restriction would prevent meeting this date which is designed to provide the assessment analysis to decision makers and the public before the next program draft is completed. Continuation of the amendment would put completion of the Assessment on the same delayed schedule as the Program.

Special Exhibits

Passenger-Carrying Vehicles

The Forest Service is a field organization that operates in remote sections of the country. Public transportation is not available in most locations. There are over 229 million acres within the boundaries of the National Forests and about 726 million acres of State and private forest land within areas covered by cooperative forest programs.

The Forest Service fleet comprises over 16,000 pieces of equipment, ranging from sedans and pickup trucks to bulldozers and motor graders. The Forest Service uses fleet management centers or commercial rental services to the fullest practical extent when it is cost effective.

Forest officers use passenger-carrying vehicles in protecting and managing the National Forest System lands, research, State and private forestry, and law enforcement activities.

Additions

The Forest Service proposes to purchase seven additional passenger-carrying vehicles, of which two are for law enforcement, to replace pickup and utility trucks and carryalls. Passenger carrying vehicles are less costly to operate and maintain than trucks.

Replacements

The Forest Service proposes to replace 179 of the 1,219 passenger-carrying vehicles now in operation that meet the requirements of having traveled more than 60,000 miles and/or being more than 6 years old.

Seven replacement law enforcement vehicles requested are for use by Forest Service criminal investigators. The Forest Service does not obtain high performance engines, but the remaining components of a type IV vehicle (suspension and cooling system for weight, electrical system for communications, equipment, size and configuration for multipurpose uses) meet the needs of criminal investigators. Ordering these features separately would be more costly than ordering the "police special" with small engine options.

These type IV vehicles obtained through the Government Services Administration (GSA) are necessary to:

1. Provide an adequate system of communications equipment to ensure responsiveness and employee safety.
2. Provide a multiuse vehicle that will safely and efficiently haul 600 or more pounds of investigative equipment and simultaneously transport Federal prisoners.
3. Provide security (as compared with a utility vehicle) for expensive investigative equipment, such as night viewing devices.
4. Provide adequate separation between Federal prisoners and Federal officers, and provide a safe means of transporting prisoners.

Passenger-carrying vehicles

Age Data
(as of September 30, 1986)

<u>Year</u>	<u>Number of Vehicles</u>
1980 and older	312
1981	195
1982	86
1983	135
1984	105
1985	61
1986	<u>123</u>
Total	1,017

Mileage Data
(as of September 30, 1986)

<u>Miles</u>	<u>Number of Vehicles</u>
60,000 and over	439
50,000 to 59,999	92
40,000 to 49,999	108
30,000 to 39,999	84
20,000 to 29,999	99
10,000 to 19,999	87
0 to 9,999	<u>108</u>
Total	1,017

Federal Excess Personal Property, Vehicles, and Aircraft

General

The Forest Service is authorized by 40 U.S.C. 483 to loan property, no longer required by Federal agencies, to States for rural and wildland fire protection. The States can use the property in their protection program or assign the loaned property to cooperating volunteer rural fire departments.

Property on loan to States is also replaced, when possible, with equipment excess to Federal agency needs.

Excess property is directed to areas with the largest potential efficiency gain based on an analysis of fire protection needs. Funding is not required to purchase property through this program.

Passenger-carrying Vehicles

For FY 1988, an estimated 157 passenger-carrying vehicles will be replaced or acquired.

The current fleet on loan to the States and territories is 231.

Aircraft

Aircraft replacement and acquisition estimates for loan to States and territories are:

- 18 single-engine reconnaissance aircraft
- 13 twin-engine reconnaissance and cargo aircraft
- 19 helicopters

The current fleet on loan to States and territories is:

- 106 single-engine aircraft
- 51 twin-engine aircraft
- 37 helicopters

Forest Service
Consolidated Schedule of Permanent Positions Paid
from Funds Available to the Forest Service

Detail of Permanent Positions

	<u>1986</u> <u>Actual</u>	<u>1987</u> <u>Estimate</u>	<u>1988</u> <u>Estimate</u>
ES-6	1	1	1
ES-5	5	7	7
ES-4	29	30	30
ES-3	17	17	17
ES-2	4	4	4
ES-1	0	1	1
Subtotal	<u>56</u>	<u>60</u>	<u>60</u>
GS-17	0	0	0
GS-16	3	3	3
GS/GM-15	212	213	204
GS/GM-14	670	672	643
GS/GM-13	1,642	1,648	1,577
GS-12	2,681	2,691	2,575
GS-11	4,942	5,010	4,794
GS-10	122	124	119
GS-9	5,164	5,248	5,022
GS-8	517	526	503
GS-7	4,038	4,101	3,924
GS-6	1,771	1,813	1,735
GS-5	3,502	3,540	3,387
GS-4	2,074	2,124	2,032
GS-3	519	532	509
GS-2	28	36	34
GS-1	2	10	10
Subtotal	<u>27,887</u>	<u>28,291</u>	<u>27,071</u>
Positions at rates established by Acts of 6/20/58 and 9/23/59 5 U.S.C. 3104			
	1	1	1
Ungraded (wage rate) total permanent positions	1,435	1,456	1,392
Unfilled positions, end of year	<u>(1,398)</u>	<u>(1,372)</u>	<u>(1,358)</u>
Total permanent employment, end of year	29,379	29,808	28,524

National Forest System Obligations, by Forest

	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>
	(Dollars in thousands)		
<u>Region 1</u>			
Beaverhead	\$ 3,925	\$ 3,318	\$ 2,850
Bitterroot	5,094	4,305	3,698
Clearwater	8,244	6,968	5,986
Custer	5,464	4,618	3,967
Deerlodge	3,869	3,270	2,809
Flathead	8,621	7,286	6,259
Gallatin	5,157	4,359	3,744
Helena	3,900	3,296	2,832
Idaho Panhandle	13,449	11,368	9,765
Kootenai	10,021	8,470	7,276
Lewis & Clark	4,162	3,517	3,022
Lolo	8,675	7,332	6,298
Nezperce	8,248	6,971	5,988
Subtotal	<u>88,829</u>	<u>75,078</u>	<u>64,494</u>
Regional Office	<u>26,190</u>	<u>22,137</u>	<u>19,014</u>
Total, Region 1	\$115,019	\$ 97,215	\$ 83,508
<u>Region 2</u>			
Arapaho-Roosevelt	\$ 5,611	\$ 4,861	\$ 4,175
Bighorn	4,012	3,476	2,986
Black Hills	8,137	7,049	6,055
Grand Mesa, Uncompahgre, and Gunnison	6,616	5,731	4,923
Medicine Bow	5,598	4,849	4,166
Nebraska	2,390	2,070	1,778
Pike-San Isabel	6,238	5,404	4,642
Rio Grande	4,292	3,718	3,194
Routt	4,226	3,661	3,145
San Juan	6,019	5,214	4,479
Shoshone	3,781	3,275	2,813
White River	6,678	5,785	4,969
Subtotal	<u>63,598</u>	<u>55,093</u>	<u>47,325</u>
Regional Office	<u>12,996</u>	<u>11,259</u>	<u>9,671</u>
Total, Region 2	\$ 76,594	\$ 66,352	\$ 56,996
<u>Region 3</u>			
Apache-Sitgreaves	\$ 9,792	\$ 8,230	\$ 7,069
Carson	5,367	4,511	3,875
Cibola	6,300	5,295	4,549
Coconino	8,513	7,155	6,146
Coronado	6,416	5,393	4,632
Gila	7,903	6,642	5,706
Kaibab	6,250	5,253	4,513
Lincoln	5,374	4,517	3,880
Prescott	4,833	4,062	3,489
Santa Fe	6,700	5,631	4,837
Tonto	9,598	8,067	6,930
Subtotal	<u>77,046</u>	<u>64,756</u>	<u>55,626</u>
Regional Office	<u>18,735</u>	<u>15,746</u>	<u>13,525</u>
Total, Region 3	\$ 95,781	\$ 80,502	\$ 69,151

National Forest System Obligations, by Forest - Continued

	<u>FY 1986</u>	<u>FY 1987</u> (Dollars in thousands)	<u>FY 1988</u>
<u>Region 4</u>			
Ashley	\$ 4,776	\$ 3,921	\$ 3,368
Boise	13,829	11,355	9,754
Bridger-Teton	6,388	5,245	4,505
Caribou	3,205	2,631	2,260
Challis	3,359	2,758	2,369
Dixie	5,141	4,222	3,626
Fishlake	3,656	3,002	2,579
Humboldt	3,202	2,629	2,259
Manti-LaSal	4,115	3,379	2,902
Payette	9,542	7,835	6,730
Salmon	4,764	3,912	3,360
Sawtooth	5,256	4,316	3,707
Targhee	5,742	4,715	4,050
Toiyabe	6,597	5,416	4,653
Uinta	4,057	3,331	2,861
Wasatch-Cache	6,212	5,101	4,381
Subtotal	<u>89,841</u>	<u>73,768</u>	<u>63,364</u>
Regional Office	<u>14,251</u>	<u>11,700</u>	<u>10,053</u>
Total, Region 4	\$104,092	\$ 85,468	\$ 73,417
<u>Region 5</u>			
Angeles	\$ 18,490	\$ 14,637	\$ 12,573
Cleveland	10,284	8,141	6,993
Eldorado	8,788	6,957	5,976
Inyo	7,575	5,997	5,151
Klamath	12,243	9,691	8,325
Lassen	8,801	6,967	5,985
Los Padres	15,134	11,980	10,291
Mendocino	8,110	6,420	5,514
Modoc	5,311	4,204	3,612
Plumas	12,546	9,932	8,531
San Bernardino	13,554	10,730	9,217
Sequoia	10,922	8,646	7,427
Shasta-Trinity	19,399	15,356	13,191
Sierra	12,393	9,810	8,427
Six Rivers	7,710	6,104	5,243
Stanislaus	8,948	7,084	6,085
Tahoe	9,147	7,241	6,220
Lake Tahoe Basin Mgt. Unit	3,680	2,913	2,502
Subtotal	<u>193,035</u>	<u>152,810</u>	<u>131,263</u>
Regional Office	<u>24,551</u>	<u>19,433</u>	<u>16,694</u>
Total, Region 5	\$217,586	\$172,243	\$147,957

National Forest System Obligations, by Forest - Continued

	<u>FY 1986</u>	<u>FY 1987</u> (Dollars in thousands)	<u>FY 1988</u>
<u>Region 6</u>			
Colville	\$ 6,053	\$ 5,572	\$ 4,786
Deschutes	17,401	16,018	13,759
Fremont	6,667	6,137	5,272
Gifford Pinchot	12,438	11,450	9,835
Malheur	9,177	8,447	7,256
Mt. Baker-Snoqualmie	9,435	8,685	7,460
Mt. Hood	11,545	10,627	9,129
Ochoco	5,851	5,386	4,627
Okanogan	6,642	6,114	5,252
Olympic	7,364	6,779	5,823
Rogue River	7,692	7,081	6,083
Siskiyou	8,268	7,611	6,538
Siuslaw	9,156	8,428	7,240
Umatilla	9,972	9,180	7,885
Umpqua	9,181	8,451	7,260
Wallowa-Whitman	17,587	16,189	13,907
Wenatchee	11,613	10,690	9,183
Willamette	13,853	12,752	10,953
Winema	8,167	7,518	6,458
Subtotal	<u>188,062</u>	<u>173,115</u>	<u>148,706</u>
Regional Office	<u>25,251</u>	<u>23,242</u>	<u>19,966</u>
Total, Region 6	\$213,313	\$196,357	\$168,672
<u>Region 8</u>			
National Forests in Alabama	\$ 5,427	\$ 4,706	\$ 4,043
Caribbean	1,233	1,069	919
Chattahoochee-Oconee	6,584	5,709	4,904
Cherokee	7,523	6,524	5,604
Daniel Boone	7,240	6,278	5,393
National Forests in Florida	6,573	5,700	4,896
Francis Marion-Sumter	5,210	4,518	3,881
George Washington	5,711	4,953	4,255
Jefferson	5,780	5,012	4,305
Kisatchie	5,406	4,688	4,027
National Forests in Mississippi	7,884	6,837	5,873
National Forests in North Carolina	10,095	8,775	7,520
Ouachita	9,551	8,282	7,114
Ozark-St. Francis	7,359	6,382	5,482
National Forests in Texas	5,606	4,862	4,176
Subtotal	<u>97,182</u>	<u>84,291</u>	<u>72,392</u>
Regional Office	<u>19,734</u>	<u>17,099</u>	<u>14,702</u>
Total, Region 8	\$116,916	\$101,390	\$ 87,094

National Forest System Obligations, by Forest - Continued

	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>
		(Dollars in thousands)	
<u>Region 9</u>			
Allegheny	\$ 4,865	\$ 4,345	\$ 3,732
Chequamegon	4,202	3,753	3,224
Chippewa	4,714	4,209	3,616
Green Mountain	2,872	2,565	2,203
Hiawatha	5,184	4,630	3,977
Huron-Manistee	6,180	5,518	4,740
Mark Twain	8,689	7,759	6,665
Monongahela	4,572	4,082	3,507
Nicolet	4,906	4,381	3,763
Ottawa	4,616	4,122	3,541
Shawnee	3,469	3,097	2,661
Superior	9,254	8,264	7,099
Wayne-Hoosier	4,687	4,186	3,596
White Mountain	4,086	3,649	3,135
Subtotal	<u>72,296</u>	<u>64,560</u>	<u>55,459</u>
Regional Office	<u>11,211</u>	<u>10,011</u>	<u>8,598</u>
Total, Region 9	\$ 83,507	\$ 74,571	\$ 64,057
<u>Region 10</u>			
Chugach	\$ 5,928	\$ 5,417	\$ 4,653
Tongass-Chatham	4,238	3,873	3,327
Tongass-Ketchikan	3,698	3,379	2,903
Tongass-Sitkine	2,238	2,045	1,757
Subtotal	<u>16,102</u>	<u>14,714</u>	<u>12,640</u>
Regional Office	<u>6,844</u>	<u>6,255</u>	<u>5,373</u>
Total, Region 10	\$ 22,946	\$ 20,969	\$ 18,013
TOTAL, all Regions	\$1,045,754	\$895,067	\$768,865

Construction Obligations, by Forest

	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>
	(Dollars in thousands)		
<u>Region 1</u>			
Beaverhead	\$ 1,641	\$ 1,771	\$ 1,090
Bitterroot	680	734	1,415
Clearwater	3,455	3,730	2,290
Custer	688	743	1,518
Deerlodge	945	1,020	1,075
Flathead	2,760	2,979	2,395
Gallatin	1,307	1,411	1,433
Helena	917	990	1,083
Idaho Panhandle	5,093	5,497	3,736
Kootenai	3,635	3,923	2,784
Lewis & Clark	864	932	1,156
Lolo	5,271	5,689	2,410
Nezperce	4,527	4,886	2,291
Subtotal	<u>31,783</u>	<u>34,305</u>	<u>24,676</u>
Regional Office	<u>3,157</u>	<u>3,408</u>	<u>7,275</u>
Total, Region 1	\$ 34,940	\$ 37,713	\$ 31,951
<u>Region 2</u>			
Arapaho-Roosevelt	\$ 696	\$ 755	\$ 1,266
Bighorn	402	436	991
Black Hills	2,296	2,388	1,201
Grand Mesa, Uncompahgre and Gunnison	1,245	1,349	939
Medicine Bow	1,945	2,007	964
Nebraska	13	14	411
Pike-San Isabel	537	782	874
Rio Grande	1,824	1,976	1,039
Routt	1,505	1,630	728
San Juan	1,328	1,439	886
Shoshone	508	550	651
White River	941	1,020	1,000
Subtotal	<u>13,240</u>	<u>14,346</u>	<u>10,950</u>
Regional Office	<u>1,125</u>	<u>1,220</u>	<u>2,237</u>
Total, Region 2	\$ 14,365	\$ 15,566	\$ 13,187
<u>Region 3</u>			
Apache-Sitgreaves	\$ 1,444	\$ 1,320	\$ 1,503
Carson	1,886	1,754	1,271
Cibola	540	531	450
Coconino	751	938	625
Coronado	238	234	586
Gila	1,737	1,608	1,147
Kaibab	1,020	1,202	849
Lincoln	619	608	515
Prescott	192	189	160
Santa Fe	1,549	1,423	1,002
Tonto	758	745	831
Subtotal	<u>10,734</u>	<u>10,552</u>	<u>8,939</u>
Regional Office	<u>1,926</u>	<u>1,893</u>	<u>1,604</u>
Total, Region 3	\$ 12,660	\$ 12,445	\$ 10,543

Construction Obligations, by Forest - Continued

	<u>FY 1986</u>	<u>FY 1987</u> (Dollars in thousands)	<u>FY 1988</u>
<u>Region 4</u>			
Ashley	\$ 1,081	\$ 884	\$ 749
Boise	1,479	1,210	1,025
Bridger-Teton	1,444	1,180	1,000
Caribou	541	442	375
Challis	311	255	216
Dixie	810	662	561
Fishlake	284	232	197
Humboldt	192	157	133
Manti-LaSal	781	638	541
Payette	4,143	3,387	2,719
Salmon	908	742	629
Sawtooth	734	600	508
Targhee	1,938	1,584	1,292
Toiyabe	1,412	1,154	978
Uinta	623	509	431
Wasatch-Cache	636	520	440
Subtotal	<u>17,317</u>	<u>14,156</u>	<u>11,794</u>
Regional Office	<u>2,284</u>	<u>1,867</u>	<u>1,781</u>
Total, Region 4	\$ 19,601	\$ 16,023	\$ 13,575
<u>Region 5</u>			
Angeles	\$ 2,183	2,976	2,021
Cleveland	917	1,250	1,059
Eldorado	1,630	2,223	1,883
Inyo	816	1,113	943
Klamath	2,044	2,786	1,960
Lassen	1,323	1,804	1,528
Los Padres	536	731	2,019
Mendocino	1,315	1,793	1,519
Modoc	495	675	571
Plumas	1,669	2,274	1,927
San Bernardino	741	1,010	1,855
Sequoia	1,220	1,664	1,409
Shasta-Trinity	2,274	3,100	2,128
Sierra	1,268	1,728	1,464
Six Rivers	1,703	2,322	1,967
Stanislaus	1,546	2,107	1,785
Tahoe	2,142	2,921	1,975
Lake Tahoe Basin Mgt. Unit	287	392	332
Subtotal	<u>24,109</u>	<u>32,869</u>	<u>28,345</u>
Regional Office	<u>4,041</u>	<u>5,508</u>	<u>4,168</u>
Total, Region 5	\$ 28,150	\$ 38,377	\$ 32,513

Construction Obligations, by Forest - Continued

	<u>FY 1986</u>	<u>FY 1987</u> (Dollars in thousands)	<u>FY 1988</u>
<u>Region 6</u>			
Colville	\$ 1,278	\$ 2,314	\$ 1,960
Deschutes	1,396	2,527	2,141
Fremont	1,147	2,076	1,759
Gifford Pinchot	5,796	10,497	8,392
Malheur	1,700	3,078	2,608
Mt. Baker-Snoqualmie	2,828	5,120	4,338
Mt. Hood	2,587	4,684	3,968
Ochoco	1,581	2,863	2,425
Okanogan	850	1,538	1,303
Olympic	3,251	5,886	4,987
Rogue River	1,753	3,175	2,990
Siskiyou	2,441	4,419	3,744
Siuslaw	2,861	5,180	4,789
Umatilla	1,446	2,618	2,218
Umpqua	3,136	5,678	4,811
Wallowa-Whitman	2,195	3,974	3,667
Wenatchee	1,967	3,562	3,117
Willamette	4,062	7,355	6,131
Winema	783	1,418	1,201
Subtotal	<u>43,058</u>	<u>77,962</u>	<u>66,549</u>
Regional Office	<u>4,849</u>	<u>8,782</u>	<u>6,940</u>
Total, Region 6	\$ 47,907	\$ 86,744	\$ 73,489
<u>Region 8</u>			
National Forests in Alabama	\$ 2,124	\$ 2,411	\$ 2,042
Caribbean	110	125	106
Chattahoochee-Oconee	956	1,085	1,120
Cherokee	1,830	2,077	1,660
Daniel Boone	1,689	1,917	1,624
National Forests in Florida	1,047	1,188	1,007
Francis Marion-Sumter	1,261	1,431	1,212
George Washington	1,715	1,947	1,649
Jefferson	1,901	2,157	1,827
Kisatchie	1,237	1,404	1,190
National Forests in Mississippi	1,258	1,427	1,209
National Forests in North Carolina	3,808	4,323	3,661
Ouachita	2,112	2,397	1,931
Ozark-St. Francis	1,409	1,599	1,355
National Forests in Texas	788	894	758
Subtotal	<u>23,245</u>	<u>26,382</u>	<u>22,351</u>
Regional Office	<u>2,839</u>	<u>3,222</u>	<u>2,729</u>
Total, Region 8	\$ 26,084	\$ 29,604	\$ 25,080

Construction Obligations, by Forest - Continued

	<u>FY 1986</u>	<u>FY 1987</u> (Dollars in thousands)	<u>FY 1988</u>
<u>Region 9</u>			
Allegheny	\$ 721	\$ 791	\$ 670
Chequamegon	992	1,089	1,223
Chippewa	1,850	2,032	1,296
Green Mountain	569	625	530
Hiawatha	3,078	3,380	2,063
Huron-Manistee	441	485	411
Mark Twain	1,583	1,739	1,073
Monongahela	2,066	2,268	2,197
Nicolet	1,333	1,464	1,240
Ottawa	1,044	1,147	971
Shawnee	624	685	580
Superior	2,144	2,354	2,795
Wayne-Hoosier	988	1,085	1,119
White Mountain	649	713	654
Subtotal	<u>18,082</u>	<u>19,857</u>	<u>16,822</u>
Regional Office	<u>1,672</u>	<u>1,837</u>	<u>1,557</u>
Total, Region 9	\$ 19,754	\$ 21,694	\$ 18,379
<u>Region 10</u>			
Chugach	\$ 360	\$ 245	\$ 208
Tongass-Chatham	754	514	236
Tongass-Ketchikan	1,005	686	1,179
Tongass-Sitkine	865	590	300
Subtotal	<u>2,984</u>	<u>2,035</u>	<u>1,923</u>
Regional Office	<u>895</u>	<u>611</u>	<u>318</u>
Region 10, Total	3,879	2,646	2,241
TOTAL, all Regions	\$207,340	\$260,812	\$220,958

Land Management Planning

National Forest Management Act

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA), requires the Secretary of Agriculture to attempt to develop an integrated land and resource management plan for each administrative unit of the National Forest System by September 30, 1985. To implement the NFMA requirements, regulations were developed to guide land and resource management planning on 191 million acres of the National Forest System. The regulations require integrated planning for all resources (i.e., timber, range, fish and wildlife, water, wilderness, and recreation), as well as coordination of other resources, such as minerals.

The NFMA regulations were revised in 1983 in response to a court decision that the 1979 Roadless Area Review and Evaluation (RARE II) environmental statement and associated procedures were inadequate under the National Environmental Policy Act (NEPA). The revision subjects to reevaluation, through forest planning, areas that remain essentially roadless and undeveloped and that have not been designated by Congress for either wilderness or nonwilderness uses.

A major part of the RARE II issue has been resolved through enactment of wilderness legislation. Altogether, 64.7 million acres in roadless areas have been inventoried--62.0 million through the RARE II process, and 2.7 million acres recommended for wilderness through primitive area reviews. Of this, about 16.9 million acres have been designated as wilderness areas; 27.9 million acres have been released for uses other than wilderness; and about 21.5 million of the acres already inventoried remain unresolved, including 4.4 million acres in Alaska.

Land Management Planning

The planning process requires a continual flow of information and management direction among the three Forest Service administrative levels: national, regional, and designated forest planning areas. Management direction is based principally upon locally derived information about production capabilities. The direction reflects resource needs and conditions pertinent to all levels and becomes increasingly specific as planning progresses from the national to regional levels and from the regions to the national forests.

All nine regional guides have been completed, reflecting the 1980 national program. The regional guides include management decisions in three areas: establishing standards and guidelines, reflecting goals and objectives of the RPA Program that are consistent with resource capabilities, and displaying tentative resource objectives for each national forest.

The forest land and resource management plans developed under NFMA include management planning for all resources. Of the 123 forest plans to be developed under NFMA, 65 plans have been finalized and another 55 draft plans have been published or approved for publication. Included in these figures are forest plans that have been reviewed by the Washington Office but were not published by September 30, 1986. A number of reasons account for delays in publication of forest plans. These forests are primarily in the Pacific Northwest and the Pacific Southwest Regions. For example, considerable effort was devoted to the preparation of the Spotted Owl Supplement to the Pacific Northwest Regional Guide. The issue of how much old-growth habitat is needed to ensure viability of the spotted owl is being dealt with in the supplement. This matter has resulted in delay in issuing of forest plan in the Pacific Northwest Region.

Also, release of final forest plans in Idaho has also been delayed until a study of the aggregate effects of potential timber sale levels from the national forests in Idaho have been considered collectively. Release of these forest plans will occur in FY 1987.

Considerable effort is being placed on implementing published forest plans at the regional and forest levels. Implementation of forest plans requires the same types of skills as those necessary in forest plan development.

Administrative appeals are expected on most forest plans and litigation is also possible. This will result in considerable work at forest, regional, and national levels. Forest plans will be implemented as funding levels permit except where action has been withheld pending the outcome of an appeal.

Relationship Between RPA and Land Management Planning

The current forest planning effort uses the 1985 RPA Program objectives. The 1985 RPA Program is based on data from forest planning, State forest resource planning, and research planning. As forests implement their plans, and as the 1985 RPA Program is implemented, a closer relationship is expected to develop between RPA and land management planning.

The following general requirements outline the relationship between RPA and land management planning at the regional and national forest levels:

- The RPA Program provides national direction and regional output levels to the regions for development of regional guides and forest plans.
- The regional guides disaggregate the regional RPA output levels to individual national forests.
- Resource inventories determine the production potential of forest lands. This forest level information is used in preparing forest plans. Each forest evaluates national level RPA objectives to determine if they are compatible with resource supplies, demand levels, economic efficiency, community stability, and potential environmental effects.
- Each national forest develops its forest alternative in compliance with NFMA regulations, the Chief's direction, the direction in the regional guide, and forest resource inventories.
- The regions use forest alternative information to build regional alternatives. The regional alternatives are the information base for development of national alternatives and a preferred national RPA program.

Sources of funding are:

	<u>FY 1986 Actual</u>	<u>FY 1987 Estimate</u>	<u>FY 1988 Estimate</u>
	(Dollars in thousands)		
National Forest System	\$18,490	\$16,712	\$16,426
Construction	5,260	4,790	4,163
Tongass Timber Supply Fund	<u>66</u>	<u>66</u>	<u>864</u>
Total	\$23,816	\$21,568	\$21,453

RESOURCES PLANNING ACT, 1988-1990

The 1985 RPA Program update was constructed as a range of resource options to permit consideration of both the current Federal deficit situation and long term resource goals based on future needs described in the Assessment. The descriptions of the two bounds of the range display the effects of following different short-term funding strategies, but with the same long-term resource goals and emphases. Both bounds are designed with a high measure of economic efficiency, respond in a positive way to the RPA Assessment, and meet the President's Statement of Policy principle of judicious balance.

The two bounds demonstrate a program for the Forest Service and its effects under each of these strategies. They provide long-term benchmarks of two alternative short-term funding levels for the Forest Service.

The funding strategy at the High Bound of the Program for National Forest System is aimed at making new investments to meet the long term renewable resource needs described in the findings of the Assessment. In addition, the High Bound provides for maintenance of existing facilities. Where deferred maintenance has led to deterioration, closure, and potential loss of investments, work has been started to restore the facilities.

The funding strategy for State and private forestry programs at the High Bound is to phase out Federal financial assistance, and to rely on States and the private sector to provide an increasing share of the cost over time.

New research initiatives are funded more rapidly at the High Bound and the result is a strong, positive effect on resource management and use. For example, the volume of timber offered for sale from national forests is estimated to be 28 percent greater in 2030 than it would be without the contribution of new technology resulting from research.

The funding strategy at the Low Bound for National Forest System is designed to make an immediate, direct contribution toward reduction of the Federal deficit. Costs would be held constant from 1987 through 1990 at the level of the FY 1987 President's budget request. As a result, returns to the Treasury exceed costs by about \$500 million by 1990, and the objective of making a direct contribution to deficit reduction is met. However, this funding strategy means that some of the investments contained in the High Bound must be delayed and the backlog of deferred maintenance on existing facilities will be even larger by 1990. After 1990, investments to achieve higher future resource output levels would be made. However, the overall effect of the short-term funding strategy is less contribution to long-term resource needs and a lower returns-to-costs picture over the life of the program. Risk levels, with respect to such things as meeting legal requirements, health, and safety, are greater at the Low Bound, particularly during the first 5 years of the Program.

The Low Bound funding strategy for State and private forestry programs would immediately eliminate all funding to States, except for some information gathering contracts or other services essential to the Federal government. Federal programs would provide technical assistance and focus on critical national and State issues. The States would need to fund the cost of programs projected in their plans in order for the State and private forestry program to be as efficient as the High Bound.

For research, the Low Bound strategy allows for only minimal implementation of new initiatives during the early years of the program. Full implementation would be deferred well beyond the High Bound with potential negative impacts on resource management and productivity capability. For comparison, the estimate of additional timber volume in 2030 attributed to new technology is 5 percent above what otherwise could be offered for sale.

The following tables compare the 1988 President's Budget to the 1988-1990 RPA Program.

1988 President's Budget Compared to 1988-1990 RPA Program
(Millions of dollars)

Appropriation	1988 Request	-----Low Bound-----			-----High Bound-----		
		1988	1989	1990	1988	1989	1990
Research	122.2	116.4	116.4	116.4	131.5	134.4	137.2
State and Private Forestry	35.4	24.9	24.9	24.9	80.7	84.1	87.3
National Forest System	1,098.4 <u>1/</u>	963.7	963.7	963.7	1,368.4	1,417.0	1,468.8
Construction	221.5	202.4	202.4	202.4	245.1	265.7	286.2
Land Acquisition	3.9	5.3	5.3	5.3	30.7	36.9	43.1
Other Appropriations	5.8	--	--	--	--	--	--
Permanent App.-Working Funds	145.2	140.4	140.4	140.4	140.6	146.6	152.6
Permanent-Payments to States	26.1	--	--	--	--	--	--
Trust Funds	250.4	161.1	161.1	161.1	146.5	161.0	174.9
Human Resource Program	--	2.0	2.0	2.0	2.0	2.0	2.0
Purchaser Road Construction	--	(122.8)	(122.8)	(122.8)	(255.1)	(253.9)	(252.8)
TOTAL ALL FUNDS	1,908.9	1,616.2	1,616.2	1,616.2	2,145.5	2,247.7	2,352.1

Major Outputs

Indicator (Unit)	1988 Request	-----Low Bound-----			-----High Bound-----		
		1988	1989	1990	1988	1989	1990
Range Management (MM AUM)	10.0	9.8	9.8	9.8	9.8	9.8	9.8
Recreation Use (MM RVD)	225.0	215.5	215.5	216.0	226.0	230.0	233.0
Wilderness Mgmt (MM Acres)	32.4	35.0	35.0	35.0	35.0	36.0	37.0
Trail Const/Reconst (Miles)	543	502	502	502	4,129	4,300	4,470
Timber Offer (BBF)	11.1	10.0	9.5	9.0	11.5	11.5	11.6
Reforestation (M Acres) <u>2/</u>	363.0	335.0	335.0	335.0	390.0	408.0	426.0
Timber Stand Impr. (M Acres) <u>2/</u>	316.0	302.0	302.0	302.0	370.0	387.0	404.0
Road Const-Reconst (Miles)	1,416	842	842	842	2,157	2,430	2,704
Purchaser Road Const (Miles) <u>3/</u>	6,193	6,037	6,037	6,037	8,332	8,462	8,192

1/ Includes Reforestation Trust Fund (\$30 million) and Operation and Maintenance of Recreation Facilities (\$52 million).

2/ Includes acres accomplished with K-V funds.

3/ Includes Purchaser Election Program miles.

Reprogramming Language

A modification of the reprogramming guidelines is being proposed for the Forest Service. This will facilitate the new timber sale cost accounting process, reduce Forest Service budget and accounting costs, more easily implement forest land management plans and standards, create an incentive to reduce resource unit costs, and allow for more accurate accounting information (charge as worked).

Reprogramming language applicable to the Forest Service is as follows:

1. Definition - "Reprogramming," as defined in these procedures, includes any decrease in specified output targets. In cases where either Committee report displays a finer breakdown of output targets, that finer level of detail shall be the basis for reprogramming. For investment or construction accounts, a reprogramming constitutes the reallocation of funds from one construction project identified in the budget justifications to another. A reprogramming shall also consist of any significant departure from the program described in the Agency's budget justifications.

2. Criteria for reprogramming:

(a) Any project or activity which may be deferred through reprogramming shall not later be accomplished by means of further reprogramming; but, instead, funds should again be sought for the deferred project or activity through the regular appropriation process.

(b) A reprogramming should be made only when an unforeseen situation arises; and then only if postponement of the project or the activity until the next appropriation year would result in actual loss or damage. Mere convenience or desire should not be factors for consideration.

(c) Reprogramming should not be employed to initiate new programs or to change allocations or targets specifically denied, limited, or increased by the Congress in the Act or the report. In cases where unforeseen events or conditions are deemed to require such changes, proposals shall be submitted in advance to the Committee regardless of amounts involved and be fully explained and justified.

3. Reporting and approval procedures:

(a) Any proposed reprogramming must be submitted to the Committee in writing prior to implementation if it results in a decrease of any specified target in the Act or reports with the following exceptions:

- (1) Any land purchase not exceeding \$200,000.
- (2) Any construction project not exceeding \$200,000 or which results in an increase or decrease of not more than 25 percent annually.

Timely reports on these reprogramings shall be forwarded to the Committee by the Department.

(b) All reprogramming shall be reported to the Committee quarterly and shall include cumulative totals.

(c) Reprograming proposals submitted to the Committee for prior approval shall be considered approved after 30 calendar days if the Committee has posed no objection. However, the Agency will be expected to extend the approval deadline if specifically requested by either Committee.

4. General Administrative overhead accounts - For all appropriations where costs of general administrative expenses are funded in part from "assessments" of various budget activities within an appropriation, the assessments shall be shown in justification under the discussion of administrative expenses.

5. Contingency Accounts - For all appropriations where assessments are made against various budget activities or allocations for contingencies, the Committee expects a full explanation, separate from the justifications. The explanation shall show the amount of the assessment, the activities assessed, and the purpose of the fund. The Committee expects reports each year detailing the use of these funds. In no case shall such a fund be used to finance projects and activities disapproved or limited by Congress or to finance new permanent positions or to finance programs or activities that could be foreseen and included in the normal budget review process. Contingency funds shall not be used to initiate new programs.

6. Report language - Any limitation, directive, or earmarking contained in either the House or Senate report which is not contradicted by the other report nor specifically denied in the conference report shall be considered as having been approved by both Houses of Congress.

7. Assessments - No assessments shall be levied against any program, budget activity, subactivity, or project funded by the Interior Appropriations Act unless such assessments and the basis therefore are presented to the Committees on Appropriations and are approved by such committees, in compliance with these procedures.

8. Land acquisitions - Lands shall not be acquired for more than the approved appraised value (as addressed in section 301(3) of P.L. 91-646) except for condemnations and declarations of taking, unless such acquisitions are submitted to the Committees on Appropriations for approval in compliance with these procedures.

